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POWER AND COMMUNICATION IN COLLECTIVE BARGAINING

By

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B.A., California State University, Fresno, 1979

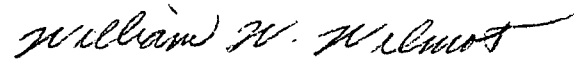
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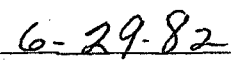
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Communication

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A great variety of theoretical and operational definitions of power appear in the literature. This study attempted to synthesize the theoretical definitions and to generate a valid operational measure of power. Two coding schemes were generated and used to code a one hour simulated bargaining interaction. The coding results were tested against an objective outcome measure and the subjects' self-reports of the relative power of the parties in the bargaining session.

Six experienced bargainers from the local community were assigned to two three-person groups for the bargaining simulation. The subjects prioritized the issues, acted out the bargaining simulation, and were interviewed to discover their perceptions of the power dynamics of the bargaining interaction. One week later they viewed the videotapes made of the simulation session and identified the power tactics they saw. The first coding scheme was generated from the post-simulation interview data; the second was generated from the videotape viewing session.

Only limited reliability was established for the two coding schemes. A close correlation was found, however, between coder agreement and the objective outcome measure. One interesting result was that both teams perceived themselves as having won. Future research should focus on refining participant generated coding categories, examining the role of language and nonverbal cues on perceptions of power, and determining the varying intensities of different categories of power related behavior.

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CHAPTER 1

INTRODUCTION AND STATEMENT OF THE PROBLEM

It has become increasingly clear in recent years that power is an integral part of all human relationships. Rollo May has pointed out that many philosophers have equated power with 'being' (1972). If this is true, then all human beings necessarily exert some form of power. Similarly, Rozinski claims that "power is nothing less than an objective quality of all reality, a quality inherent in all that exists" (1965, p. 13). While this philosophical position may be a bit extreme, this study accepts the general assumption that all persons in all relationships exert some power by virtue of their participation in human relationships. More simply stated, Frost and Wilmot argue that "one cannot not use power" (1978). Clearly, it is impossible to ignore the dynamics of power and its effects when analyzing human relationships.

In addition, most scholars agree that conflict is also an inherent part of all human relationships (Keltner, 1973 and Frost & Wilmot, 1978). In fact, conflict and power are inextricably tied together in human relations. As Duke (1976) argues,

The central core of what we call conflict is not conflict at all, but rather, power.... It is power which gives the theory its unique flavor and which represents its most formidable analytical and explanatory tool. (p. 159)

Raven and Kruglanski (1970) agree that power is a major determinant

in conflict resolution. Thus, no study of any conflict setting is complete without an understanding of the power relationships involved.

In collective bargaining a clear understanding of power dynamics is particularly crucial. Traditionally, one of the greatest sources of dissatisfaction in labor-management relations has been the disparity of power between the two parties. In fact, collective bargaining was established as common practice in industrial relations in order to alleviate that power disparity (Richardson, 1974). That is why Gruder (1970) says

Although the concept of power is basic to a discussion of any social influence process nowhere is it more applicable than in research on interpersonal and intergroup negotiations.... In the world of formal negotiations, big business, big labor, blacks and whites, public employees, and aspirants to public office all extol the necessity (if not the virtues) of power. (p. 112)

At this point then, it appears axiomatic that power dynamics are a deciding factor (if not the deciding factor) in negotiating a resolution to any conflict.

These assumptions, while widely accepted, leave a number of questions unanswered. What exactly is power? How does it influence conflict resolution? How is it manifested in negotiations? Can power be measured? These questions are all important in that fundamental power relationships underlie all negotiations (Cross, 1969). Cross points out that while most literature on negotiation includes some discussion of bargaining power "there does not appear to be anything approaching consensus as to what 'power' is." (p. 17). This lack of consensus is due to two primary areas of disagreement.

in the literature: 1) conceptual definitions of power are many and varied and 2) varying theories of social interaction call for very different definitions of the concept of power.

Conceptual Issues

Duke's (1976) discussion of conflict and power outlines seven important conceptual issues which are sources of confusion or disagreement in defining power (pp. 41-41):

1. Power is variously defined as potential for social action and as a function of actor's bargaining behavior.
2. It has been both distinguished from and equated with force, coercion, persuasion, and influence.
3. It has been seen as both asymmetrical (one direction of influence) and symmetrical (mutual lines of influence).
4. It has been associated with both the legitimate and illegitimate use of force.
5. It has been seen as a zero-sum quantity at times and as a shareable resource at other times.
6. It has been described as both a possession or attribute of a party and as an available resource at the disposal of a party.
7. It has also been conceptualized as a general capability available in all situations and also as a situation-specific variable.

Each of these areas of potential confusion must be adequately addressed and applied specifically to the bargaining setting before

any useful conclusions can be drawn about the dynamics of power in negotiation.

Potential for Action v. Actual Behavior

Perhaps the most difficult issue to resolve is whether power is a potential for action or a variable based on actors' behavior. The notion of potential is represented in two ways in power definitions. First, are definitions based on the notion of ability. Power is seen by some as the ability to achieve one's will, bring about one's desires, and/or overcome resistance (Weber, 1943; Duke, 1976; and Korda, 1975). Similarly, Keltner (1973) interprets power as "the ability to control the behavior and outcome of other persons' behavior." (p. 268). Other theorists see power as an ability to reward or punish an opponent (Raven & Kruglanski, 1970 and Bowers & Ochs, 1971).

The view of power as potential is explicitly advanced by Thibaut and Gruder (1969) and Berger (1980). Berger defines power as the potential of one partner to influence the other's behavior (1980). Thibaut and Gruder (1969), in a different vein, equate power with "threat potential" which is the ability to make one's opponents believe that you can and will impose some punishment on them. Neither ability nor potential lend themselves easily to objective measurement and evaluation. In fact, neither concept necessarily has any impact on bargaining. Is it useful to determine how much power a party has if that power is not utilized? For that matter, is it even accurate to say that a party has power if it goes unused?

These are the questions commonly raised by theorists who believe that power is most accurately determined by observing actors' behavior. Wilmot, et. al. (1981) states that the best available research equates power with conversational control (i.e.: who talks most, who changes the topic, who interrupts, etc.). This approach is represented by the work of Rogers and Farace (1975), Golembiewski (1962), and Mischler and Waxler (1968). This approach assumes that power emerges from the actions and interaction patterns of conflicting parties (Cartwright, 1959 and Turk, 1974). This argument supports the use of objective coding to determine power as exemplified in the work of Douglas (1957) and Donohue (1978). More specifically, Dahl (1957) and Kipnis (1976) equate power with the use of threats. Finally, some negotiators view power as a function of bargainers' behavior. Karrass (1974) and Illich (1980) are two professional negotiators who have written "How to . . ." books on how to gain power through the use of a variety of bargaining techniques. The rationale for the "power as behavior" philosophy is stated concisely by Turk (1974): "since group outcome is a product of all parties' input group action can be explained only in terms of interactional patterns, thus we recognize that individual goals are 'unknowable,' and sometimes unknown even to the individual and that outcome is not the doing of a single individual or party" (p. 49). Simmel puts it better in arguing that since power has so many dimensions that are difficult to determine, power can only be known through the acting out of the conflict (Coser, 1967).

One aspect of power that is neglected in the potential v. behavior dichotomy is the effect of perception on power. Karrass

argues that the most significant aspect of power is the ability to change the opponent's estimate of one's power (1974). It stands to reason that A's ability or potential to reward or punish B is, at least in part, a function of B's perception of that same ability as well as B's perception of his or her own ability to retaliate. In addition, A's power behavior can only be effective if B perceives the behavior as powerful. Apfelbaum (1974) and Berger (1980) prove the importance of perception in reviewing a number of studies which indicate that actors' perceptions of power relationships and tactics do not correlate with traditional source, outcome, and interaction measures.

It is clear that there is much disagreement about the sources and manifestations of power. How these issues may be resolved in the study of bargaining power is an issue that will be addressed later in this discussion.

Force, Coercion, Influence, and Persuasion

Duke (1976) suggests that one of the difficulties in defining power is the fact that power has been both differentiated from and equated with force, coercion, influence, and persuasion. As many respected theorists (most notably French & Raven, 1959 and May, 1972) have proposed, force and coercion are merely subsets of power. Certainly force, at least physical force, is not a bargaining tactic but rather, a tactic used on occasion when bargaining breaks down.

As for influence and persuasion, these are means of getting one's way. As such they are also forms of power. However, several power tactics such as interrupting (Rogers & Farace, 1975) and

bargaining on one's own territory (Chertkoff & Esser, 1976) are not persuasive or influential per se. Thus, these notions too, are simply subsets of power as a whole. In order to study power in its fullest sense, this paper will not limit the concept by equating it with any of these terms but will treat the notions of force, coercion, persuasion, and influence as various ways of establishing and/or exercising power.

Unidirectional Influence v. Multidirectional Influence

The third issue raised by Duke concerns whether power is wielded by one party in a conflict or by both. Michael Korda (1975) suggests that there are two types of people: 1) the powerful and 2) the powerless. This reflects a view of power as unidirectional. Many researchers and theorists reflect this view and it is clearly evidenced in the work of Jacobsen (1972) and Swingle (1976) who offer a conceptualization of power as "residing in" either the source or the target of power tactics, but not both.

On the other hand, many theorists argue that all parties in a relationship exercise some power no-matter how little or how indirect (Kipnis, 1976; Apfelbaum, 1974; and Frost & Wilmot, 1978; and others). These writers propose that regardless of the size of the power disparity, all parties in a conflict will find some way to exert and exhibit power. An extremely low power individual may have to resort to subterfuge (Miller, 1976 and Safilios-Rothschild, 1969) but they will exercise power even if it means resorting to violence (Duke, 1976).

Legitimate Use of Force v.
Illegitimate Use of Force

The issue of power as the legitimate or illegitimate use of force is not applicable to the negotiation setting. In the first place, force is a power technique which is resorted to only when bargaining breaks down and even then, only in certain cases. Consequently, force is not an appropriate term to describe what goes on at the bargaining table.

As for the notion of legitimacy, legitimate power is distinguished from illegitimate power by determining the parties' perceptions of the opponent's right to exercise power in a relationship (Duke, 1976). More specifically, legitimate power is the exercise of power over another, who believes that one has the right to exercise such power. Conversely, illegitimate power is the exercise of power over another, who does not believe that one has the right to exercise that power. In a bargaining situation the parties are generally free to exchange proposals and to accept or reject them as they see fit. In looking at the behavior of the parties, there is no way of determining what each parties' assessment of the other's rights are unless they make an explicit statement such as: "You have no right to make such a demand." In the absence of such an explicit statement it can only be assumed that a power move has been accepted as legitimate.

Zero-sum v. Shareable Resource

Another difficult issue is whether power is a zero-sum resource or not. If it is, then any increase in one party's power necessitates a decrease in the power of others. The major

determinant in resolving this issue is the definition of power one uses. Clearly, one's definition of power will determine whether it can be shared or not. For example, if power is equated with "who gets his way" (outcome), then the party who gets it has power and the party who does not, has no power. Similarly, to the extent that power is a function of the actors' perceptions, there is a tendency for the parties to see it as a zero-sum quantity. That is, if A believes that a particular move has increased her or his power, she or he will tend to believe that B's power is reduced.

However, if power is conceived as a function of the parties' abilities or their behavior, then it is a shareable resource. Both parties, for instance, have some potential ability to influence others (Frost & Wilmot, 1978). In addition, both parties are capable of interrupting the other or changing the topic, thus indicating an exercise of power (Rogers & Farace, 1975). Consequently, the issue remains unresolved. The question of whether or not power is a shareable resource in the bargaining setting will be clarified later.

Possession or Attribute v. Available Resource

Another point of disagreement in power definitions involves the question of whether power is something one "has" or is simply available for use. The former position is most clearly stated and supported by Korda (1975). He proposes that people are of two types--the powerful and the powerless. The implication of this approach is that some have it and some do not. Thus power is a possession or attribute of certain powerful types.

In contrast, many theorists regard power as an available resource. Those who support a relational approach argue that power energies from the relationship between the parties (Coser, 1967; Golembiewski, 1962; and Frost & Wilmot, 1978). This approach implies that power is at the disposal of either party. In other words, either party can establish or increase their power if they are aware of the factors that affect the power dynamics of the relationship. Power definitions emphasizing the notion of ability or potential support a view of power as an available resource. It may be that some dimensions of power are (or at least appear to be) possessions of a party while other dimensions are available and emerge from the interaction of the parties. This notion will be explored in greater detail later.

General Capability v. Situation
Specific Variable

The final conceptual issue to be resolved is quite similar to the 'attribute v. available resource' issue. If power is a possession or attribute of certain powerful individuals, then it can be said to be a general capability across situations for that person. If, on the other hand, power is a function of available resources (whether they be money, persuasive abilities, affection, etc.), then it must be situation specific. This must be so because the relative power is a function of both parties' perceptions, behaviors, and values (Coser, 1967; Schelling, 1970; and Bacharach & Lawler, 1980), which change from time to time and from situation to situation.

Although Duke (1976) does not discuss any of the conceptual issues he has identified, a review of the literature illustrates that

various authors define power in very different ways. It appears that two of these issues are irrelevant in determining a useful definition of bargaining power. Furthermore, at least two other issues (behavior v. potential v. perception and zero-sum v. shareable resource) are crucial to a clear understanding of bargaining power. This study will attempt to reconcile these problematic issues in defining power. In order to do so there must also be some synthesis of the various theoretical approaches to power because each of the major theoretical orientations to social interaction requires a different definition of power.

Theoretical Orientations

Various theories propose differing dimensions of social interaction, each suggesting a different view of power. The most widely accepted theoretical orientations are: 1) field theory, 2) social exchange theory, 3) coalition theory, 4) the interaction approach, 5) the psychological theories, and 6) the mathematical/probabilities model. Each of these theories will be briefly outlined in terms of its fundamental assumptions and the definitions of power that stem from those assumptions.

Field Theory

Field theory states that there are six bases of power which may be tapped by any or all parties in a conflict (French & Raven, 1959 and Raven, 1965). These six bases of power are: 1) reward power--the ability to provide others with needed or desired benefits, 2) coercive power--the ability to punish others for noncompliance

with one's wishes, 3) information power--providing others with information with convinces them to change their thinking or behaving in a desired direction, 4) legitimate power by position--power one has by virtue of the rank or position held in an organization, 5) expert power--power one has by virtue of being the most knowledgeable person on a particular subject, and 6) referent power--power given to someone because they are well-liked. Power, then, from this perspective, depends on one's ability to show, or at least convince, another that one can reward or punish, has persuasive information, has the right to induce change, is an expert, or is likeable and should be emulated or obeyed.

Social Exchange Theory

Social exchange theory is based on two fundamental assumptions. First is the assumption that people interact with each other on the basis of the relative rewards and costs involved in the relationship (Thibaut & Kelley, 1959 and Homans, 1974). That is, they tend to interact and develop relationships with people who can provide them with some benefits, usually in the form of need satisfaction. In addition, people assess the costs of maintaining a particular relationship. As long as the potential rewards exceed the costs of maintaining the relationship, a person is likely to stick with it. The greater the reward/cost ratio, the more likely the relationship will continue (Thibaut & Kelley, 1959). With this assumption in mind, theorists have concluded that power is associated with the ability to provide rewards and impose costs (much like field theory). That is, A will have power over B to the extent that A can reward B

for doing what A wants or punish B for not doing what A wants.

The second assumption of social exchange theory concerns the issue of dependence. A's power over B is equal to B's dependence upon A (Emerson, 1962; Blau, 1964; and Bacharach & Lawler, 1980). B is dependent upon A to the extent that B's need satisfaction (rewards) can only be achieved through his or her relationship with A. That is, if A controls resources that B needs and B has no alternative source for those resources, then B is totally dependent upon A. It stands to reason that if B has several alternative sources of rewards, he or she is less dependent upon A and thus A has less power over B (Blau, 1964). One additional variable in this power/dependence approach is that B's alternative sources may be far less attractive than A because, although they can provide needed resources, the reward/cost ratio may be much smaller than the ratio in the A-B relationship. If this is the case, and A knows it to be the case, then B's dependence and A's power remain high.

Coalition Theory

Coalition theory is primarily concerned with the hows and whys of coalition formation (Gamson, 1964 and Caplow, 1968). However, the key aspect of coalition formation, for the purposes of this paper, is the power enhancing function. If one party is in a low power position alone, they may join forces with other parties in the hopes that their combined strength will be sufficient to impose their will or to resist the power attempts of the other party. This approach might be called the strength in numbers approach to power.

Interaction Approach

The interaction approach is founded on the assumption that relative strength can only be determined through the acting out of a conflict (Coser, 1967). Following this assumption, Douglas (1957) states that there is a

need for a model of interactive behavior which will explain how the original sources of form and energy which are introduced at the table are transformed into a system of "table power" which can effect the settlement of disputes. (p. 81)

Many theorists and researchers have advanced and tested this approach by counting interruptions, talk time, topic changes, and other countable or codable behaviors (Golembiewski, 1962; Mischler & Waxler, 1968; Donohue, 1978; and Rogers & Farace, 1975). This approach to power equates it with either certain types of behavior or certain patterns of behavior.

Psychological Theories

The so-called psychological theories of bargaining--face saving theory, equity theory, attribution theory, and level of aspiration theory--suggest that the outcome of bargaining is determined by the psychological and personality factors that bargainers bring to the table with them (Siegel & Fouraker, 1960; Walster, 1976; Zartman, 1977; and Spector, 1977). Equity and attribution theory assume that parties will target an equitable solution as lying approximately halfway between the two opening offers. Power from this perspective, is a function of fairness or moral force in that a bargainer who makes a concession exerts some form of social power on his or her opponent because the opponent

should make the next concession. It is the social-ethical pressure to trade concessions and reach a solution roughly halfway between the initial positions that constitutes power according to these theories.

Face saving theory and level of aspiration theory deal with the parties' psychological reactions to the bargaining. The bargainers are assumed to react to the concession-making behavior of their opponent. For instance, the smaller A's concessions are, the lower B's aspirations will be. Power is evidenced by making small concessions and making them only in response to concessions made by one's opponent (Siegel & Fouraker, 1960). These two tactics are the signs of high aspirations.

Mathematical/Probabilities Model

The final theoretical orientation of interest to this study assumes that power is a function of set mathematical relations among the determinants of power (Rapoport, 1963 and 1970; and Walton & McKersie, 1968). It is assumed that the probability of successfully exercising power can be determined by using mathematical formulae. Simply put, power is the difference between the probability that an opponent will change before one's efforts to bring about a change and the probability that she or he will change after one's efforts to induce change (Cavanaugh, et. al., 1980). The greater the difference between these two probabilities (in favor of the latter) the greater the power one exercises.

Theoretical orientations to social interchange and power call for drastically different definitions and conceptualizations of power. The task of bringing together these diverse notions is a difficult

one. Theoretically speaking, power may be seen as reward and punishment potential; access to desirable alternatives; possession and/or perceptions of expertise, information, legitimacy, etc.; coalition formation; specific interaction types and patterns; psychological orientations toward fairness and/or high aspirations; and as a matter of shifting probabilities. In following these various theoretical orientations, unfortunately, research on power in bargaining has not provided a unified direction for practitioners, theorists, or future researchers.

Increasing scholarly interest in power has been evidenced by a number of literature reviews comparing power theories (Zartman, 1977 and Cavanaugh, et. al., 1980), power research (Safilios-Rothschild, 1969; Turk and Bell, 1972; Hadley & Jacob, 1973; and Turk, 1974), and both (Apfelbaum, 1974; Berger, 1980; and Bacharach and Lawler, 1980).

Reviews of theory in family power and in bargaining suggest that participants' perceptions of a relative power relationship will not be the same as objective observers' estimations of who has power. By and large the research upholds this finding. In fact, power research is plagued by four fundamental difficulties: 1) there is little agreement as to what power is (Turk, 1974; Duke, 1976; and Berger, 1980), 2) some studies assume that parties hold "equal power" initially while others assume the opposite and manipulate the power disparity (Apfelbaum, 1974), 3) there is little agreement as to how to measure power (Apfelbaum, 1974; Miller, et. al., 1977; Kipnis, et. al., 1980; and Berger, 1980), and 4) there is ample evidence that existing measures of power do not correlate (Kenkel,

1963; Olson, 1969; Turk & Bell, 1972; Hadley & Jacob, 1973; and Folger & Sillars, 1977).

Consequently, despite the vast amount of literature published on power in the last 30 years, there is still little agreement as to what power is conceptually, theoretically, or operationally. This study will attempt to synthesize these varying approaches to power by reconciling the theoretical and conceptual issues as much as possible. In addition, it will identify the major methodological difficulties that plague bargaining research and suggest a research design that will yield answers to some nagging questions about bargaining power. In short, the author plans to discover the unifying elements in the diverse approaches to power and to design and carry out a study which makes use of the most up-to-date methodology for identifying the dimensions and dynamics of power in the context of bargaining.

CHAPTER 2

REVIEW OF THE LITERATURE

Conceptual and theoretical approaches to defining and studying power are so diverse as to lead the researcher into a state of utter confusion. Bargaining theory in the area of power suffers from three major problems

1. The factors mediating power relationships are virtually impossible to measure or quantify.
2. The theoretical relationships between possible variables and mediating factors are not clearly explicated.
3. Most theories are so broad and/or imprecise that virtually any empirical findings can be construed as support for any particular theory

Given these severe limitations and the generally confused condition of power theory and research, attempting a synthesis of theories and methods is a formidable task. It is a task however, which must be undertaken if we are to make any practical use of the concept of power in the future. This paper will attempt such a synthesis in two main sections. First, the theoretical and conceptual issues will be addressed. The common elements of the different theories will provide a central core for a unified definition of power. Then the differences will be identified and explained so that a comprehensive view of power can be proposed with confidence.

Second, a review of the various measurement issues and problems will be offered. Since each of the extant approaches to the measurement of power is assumed to have some degree of validity and reliability, none should be discarded lightly. The strengths and weaknesses of each approach must be carefully considered and the best available methods must be used in such a way as to reduce their inherent weaknesses to a minimum.

Theoretical/Conceptual Issues

The six major theoretical explanations of power in human interaction each call for a very different perspective on defining power. However, if these perspectives are viewed in light of the seven conceptual issues identified by Duke (1976), several similarities reveal themselves. The clear identification of a set of similarities and differences will facilitate a clearer delineation of the dimensions of power in the bargaining context. In addition, the identification of certain similarities across theories will significantly reduce the number of disparities which must be accounted for. So, each of the six theories will be discussed with special attention given to the implications of the theory in resolving the conceptual issues associated with the definition of power.

Field Theory

Field theory deals with power as a potential ability of actor's in a conflict as well as a function of actors' perceptions. French and Raven (1959) originally proposed the existence of five bases of power: reward, coercive, expert, legitimate, and referent.

Some years later, Raven (1965) added a sixth power base to the list: information power.

Kaplan (1964) expanded the theory to include three dimensions of power which delimit each power base. First is the weight of the power, or the amount of control one has (size of reward or punishment, amount of expertise, information, etc.) to induce a specific behavior. Second is the domain of power, or the number of persons or groups over which one can exercise one's power. The last dimension is the scope of power, or the number of different kinds of behavior one can exert influence over for any given individual or group.

This particular theoretical approach does little to resolve the question of whether power is a function of actors' potential abilities, their perceptions, or their behavior. Dahl (1957) argues that the bases of power are passive and must be evoked through some means (some type of behavior). Raven and Kruglanski (1970) support this notion in that they identify a variety of ways in which each power base might be manifested in actors' behavior. These theorists believe that the bases of power themselves hold a potential for power but that power must be manifested in behavior.

This approach is upheld, in part, by Cavanaugh, Larson, Goldberg & Bellows (1980) in their review of power theories. They suggest that these six bases of power represent two different approaches. First, reward, coercion, and information power represent the ability of an actor to influence the behavior of another. On the other hand, they say that legitimate, referent, and expert power are dependent upon the target's perception of the other. Consequently, field theory provides no resolution to the potential v. perception v.

behavior issue. It does, however, offer a more unified approach to some of the other conceptual issues.

Field theory strongly supports the notion that power is multidirectional. That is, both parties have the capacity and/or the means to influence the other. This is most clearly exemplified by Raven and Kruglanski (1970). They construct scenarios from extant research illustrating the effects of the use of power by both parties. They explain that the bases of power are often used reciprocally, since one party's influence attempts are likely to be met by counter influence tactics from the other party.

Similarly, power is viewed as shareable in this theoretical approach. Both parties may have the ability to reward and punish the other, as well as access to influential information. In addition, both parties may be seen as likeable and knowledgeable, although it is unlikely that these qualities will appear to be equal to the parties. Although legitimacy is usually a function of title or position in an organization (thus giving the higher status individual a greater amount of power), this is not always true in the bargaining context.

In an organization, two parties of equal status may come into conflict in which case their legitimacy can be viewed in three ways: 1) neither party may see the other as having the right to influence their behavior, 2) both parties may see the other as having the right to influence their behavior, or 3) one party may grant the other legitimacy while the other party does not return the courtesy. In the first case legitimacy is not an issue while in the second, both parties could be said to have legitimate power. Only in the last case is

legitimate power unidirectional. In the bargaining context, the parties are engaging in a structured communication event characterized by provisional offers and counteroffers, none of which become final until accepted by all parties involved (Chertkoff & Esser, 1976). Thus, it is clear that all parties in collective bargaining have a "right" to influence the others toward accepting an optimal agreement.

The fourth conceptual issue in question is easily resolved from the standpoint of field theory. Power is viewed not as an attribute or possession of either party, but rather, as an available resource for both parties. Raven and Kruglanski state that conflict resolution is determined by the amount and type of power "at the disposal" of the conflicting parties (1970). Similarly, the ability to reward, punish, and provide information suggest that these power bases are also at the disposal of the parties and not actually possessed by them. The legitimate, expert, and referent power bases also must be considered available resources. They are not possessions since they do not reside in the powerholder. Instead they are given to her or him by the other party(s) in the conflict. Once again legitimacy can be considered as an attribute however, the low power party can always deny the legitimacy of the higher power party's influence attempts (Duke, 1976 and Karrass, 1974).

Finally, field theory assumes that power is situation specific as opposed to a general capability. Ability, perception, weight, scope, and domain are all properties of a particular social relationship (Cavanaugh, et. al., 1980). Rewards and punishments which are useful against one opponent may prove useless against another if the latter does not value what one has to offer or fear one's coercive

abilities. Information and expertise which might be convincing and superior to that of one opponent might be meaningless and inferior in relation to the knowledge and expertise of another. In addition, the relative status (legitimacy) and level of attraction (referent) are wholly dependent upon the particular individuals in a given social relationship.

In summary, field theory conceptualizes power in terms of its base (or source), weight, domain, and scope. These dimensions grow out of the social relationship between the particular other(s) involved. Power is characterized as 1) a potential of the parties, and a function of their perceptions and behaviors, 2) multidirectional (exercised by both parties), 3) shareable (available to both parties), and 5) dependent upon and specific to the particular situation and relationship(s).

Social Exchange Theory

Social exchange theory is one of the most widely accepted explanations of social interaction. This broad theory has given rise to four different perspectives on the study of power which might loosely be termed economic approaches--exchange, control of resources, power-dependence, and outcome. All four approaches use some form of economic metaphor to explain how humans interact and establish or exercise power. The exchange approach assumes that people assess relationships in terms of profit--high rewards v. low costs. Power is attributed to the party who can derive the greatest benefits for the lowest cost. The control of resources approach attributes power to persons who control scarce resources desired by others. The power-

dependence approach also attributes power to one who is the sole source of desired benefits--or at least one who offers those benefits at the lowest cost. The lack of alternative sources of desired benefits increases dependence and decreases power. The outcome approach attributes power to persons who can achieve their desired outcomes (maximum rewards) at the lowest cost.

Social exchange theory, then, is based on four basic assumptions:

1. Actors choose and maintain relationships which provide maximum benefits and require minimum costs.
2. Actors have a comparison level for relationships (CL) which is a standard for judging how attractive or satisfactory a relationship is. That is, they ask whether the relationship provides at least minimal rewards for an acceptable cost.
3. They also have a comparison level for alternatives (CLalt). This is the least profit a person will accept in a relationship in light of the profit available in alternative relationships.
4. Power is "the capability one person has of affecting another's outcomes in an interpersonal relationship" (Gruder, 1970, p. 113). These outcomes are measured in terms of reward/cost ratios. Although each of the four perspectives stemming from the theory differ in their emphasis, they are quite similar in the way they attempt to resolve the various conceptual issues in question.

Social exchange theory, like field theory, does little to resolve the question of whether power is a function of the parties' abilities and/or perceptions, or is manifested in the parties'.

behavior. The issue remains problematic. From the exchange perspective it is clear that the ability to impose costs and offer rewards is a function of both parties' potential. However, the realization of this potential is dependent upon the target's perception of the value of the rewards and/or costs and his or her perception that the influence agent, in fact, controls the resources necessary to carry out her or his threats or promises (Thibaut & Kelley, 1959; Watzlawick, 1976; and Schelling, 1970). The control of resources perspective supports these same arguments with the additional argument that power is manifested in the actual provision or retraction of desired resources. Thus, behavior plays a part in power dynamics. The exchange perspective implies a crucial link between behavior and perception in the claim that power strategies can be effective by merely "manipulating the other person's perception without any change in the objective conditions of interdependency." (Thibaut & Kelley, 1959; p. 122). Thus, in terms of the exchange and control of resources perspectives, access to and control over desired rewards and resources constitute a potential source of power for conflicting parties. Perception, however, also plays a part in that each party places some subjective value on those rewards, costs, and resources such that they view power quite differently in some instances. Furthermore, the parties' interactive behavior will influence their perceptions of the balance of costs and rewards thus altering the power relationship to some extent.

The power-dependence perspective draws these same conclusions but uses a different line of reasoning to support them. This perspective equates power with dependence. Dependence is a function

of: 1) the perceived value of the outcomes the other party can offer and 2) the availability of those outcomes outside the relationship in question (Emerson, 1962). Thus, A has power to the extent that B perceives that she or he will profit from the relationship with A. Moreover, if B has no alternative source for the outcomes A provides then A's power is further increased. Finally, the interactive behavior of A and B can affect their power relationship in that one party may be able to persuade the other that the outcomes offered are of greater value than originally thought. For example, A may act as though his own resources are extremely desirable, thus altering the power relationship (Bacharach & Lawler, 1980).

The outcome perspective, unlike the others, is oriented primarily toward behavior as a determinant of power. The assumption is that whoever gets the most desirable outcome has the most power (Gruder, 1970). Perception plays a secondary role in that it is the parties' perceptions of the reward/cost ratios that determines what the most desirable outcome is. Thibaut and Kelley (1959) equate power with the potential to affect another's outcomes but the final determinant is the actual choices one makes and the impact those choices have on the other's outcomes.

The social exchange perspectives assume that power is multidirectional in that both parties exercise influence. The one exception to this general assumption is the outcome perspective. Although it is generally argued that outcomes are the product of the interaction of both parties, theoretically an outcome matrix could be constructed which offered the same outcome to one party no matter what choices were made, thus putting all the power for

determining outcome under A's control. Theoretically, such a matrix is possible but realistically it is rare, if indeed it exists at all in human relationships.

For the most part, direction of influence in social exchange theory is founded in the notion of power and counterpower (Thibaut & Kelley, 1959). This notion assumes that for every power attempt made by A, B can offer some resistance or counterpower (imposing costs, offering rewards, etc.). "In any dyad. . . . Each one has some power over the other which places limits on the extent to which each may with impunity exercise power over his colleague" (Thibaut & Kelley, 1959, p. 124). Consequently, it is assumed that both parties are exerting influence in the relationship.

This theory also supports the concept of power as a shareable resource. That is, both parties are capable of imposing costs and rewards of some kind. If both parties did not control some resource(s) desired by the other, then there would be no relationship according to the basic tenets of social exchange theory. All parties in a relationship are dependent on the other(s) for some desired outcome (Kelley & Thibaut, 1978). Consequently, all parties have some power. Even in a case where A has complete control over B's outcome and B has no control over A's, it is assumed that A is dependent upon the relationship for something (such as his need to control others). If, however, A gains an outcome or reward at B's expense, then power could be considered to be a zero-sum quantity. Nevertheless, power is seen as being shared by the parties on the whole.

The different social exchange perspectives offer two different views of the nature of power. While all four perspectives can be said to support the notion of power as an available resource, two perspectives also imply that power can be a possession of one party or another. The ability to influence outcomes, perceptions, cost/reward ratios, and distribution of resources is available to any and all parties in a relationship (particularly in a bargaining relationship). However, the exchange and control of resources perspectives propose an additional conceptualization of power. Both these approaches allow for a definition of power as a possession. Power is described as a possession which can be used up by the possessor such that she or he may make no further demands nor induce further changes in the other's behavior (Thibaut & Kelley, 1959). One may possess money or goods which, if they are desired resources, must be equated with power under the basic assumptions of social exchange theory. Conversely, Emerson (1962) argues that "power is a property of the social relation; it is not an attribute of an actor" (p. 32).

Finally, the social exchange perspectives require that power be viewed as situation specific rather than a general capability. Aside from the fact that money and affection might be considered universally desired resources, if Emerson (1962) is right about power growing out of a social relationship, then every different relationship will have different power dynamics. Even money and affection may be worthless currencies in a given relationship if the parties' desired outcomes were increased knowledge, for example.

Social exchange theory, then, offers four approaches to the definition and conceptualization of power. These approaches universally agree that: 1) power is determined by a combination of the actors' behavior, potential, and perceptions; 2) it is exercised by all parties in a relationship, at least to some extent; and 3) it is a situationally specific variable which is determined by the relationship between the particular parties in question. The main point of disagreement involves the question of whether power is an attribute or possession of the powerful party or whether it is simply a resource available to the parties. Another point of disagreement is the question of whether power is shareable or zero-sum.

With respect to the bargaining context in particular, these two seemingly contradictory conceptualizations can be accommodated by bargaining theory. Walton and McKersie (1965) identify two types of bargaining--integrative and distributive. In integrative bargaining, creative outcomes may be found which benefit all parties concerned. Power, then, is a shareable resource. In distributive bargaining, fixed resources must be divided up so that, at least from the outcome perspective, power is zero-sum (i.e.: A's gain is B's loss). As for the possession v. available resource issue, power is a possession of the bargaining parties in that management controls the monetary resources and labor controls the manpower and productivity resources. Both sides, however, have the available means to impose costs, grant rewards, redistribute resources, effect the balance of interdependence, and influence the final outcome of the bargaining.

Coalition Theory

A third theoretical approach to the explanation of power dynamics is coalition theory. This theory is intended to predict the way in which multiple parties will join forces to gain desired outcomes (Gamson, 1965). The search for desired outcomes is carried out by the parties by combining resources with other parties such that the coalition's combined resources are sufficient to gain a desired reward. This theory is actually an offshoot of social exchange theory but it is discussed separately here because it is particularly relevant to the bargaining context. This is so in that labor and management bargaining groups represent coalitions of interest (i.e., each union is made up of a variety of workers who represent many different factions within the union as a whole and management is actually a collection of different departments, branches, and, at times, subsidiaries, whose interests are often as diverse as they are similar).

This theory offers two basic approaches to the definition and determination of power. First, power is seen as the absolute amount of resources controlled by a coalition. This view is consistent with Zartman's definition of political power. He states that political power is a function of numbers--if one forms a big enough coalition, one wins (1977). This is exemplified by the give and take of political conventions. Each party in each state can be said to control a certain number of votes for a particular candidate. By making concessions to enough interest groups and factions, one candidate will develop a coalition large enough to win the nomination. Two consequences of this approach are: 1) the

faction contributing the most resources to the coalition will demand the largest share of the rewards acquired by the coalition as a whole (Gamson, 1965), and 2) the faction with the most resources will be the most sought after coalition partner. Either way, greater resources equals greater power.

The second explanation of how power is determined contradicts the first, at least in part. It is founded on the concept of pivotal power (Gamson, 1965). This notion argues that power is not a function of initial resources. Instead, "a player's pivotal power is the proportion of times his resources can change a losing coalition into a winning one" (Gamson, 1964, p. 89). Thus, even a party with relatively few resources may have pivotal power if one or more stronger parties or coalitions need those resources to gain their desired outcome(s). In a situation such as this the weak party and the strong party have equal pivotal power because each is needed by the other in order to form a winning coalition.

These two explanations of how power is determined give rise to an interesting assumption made by coalition theorists. It is assumed that people will favor the "cheapest winning coalition" (Gamson, 1965). That is, they will form the smallest coalition necessary to achieve a satisfactory outcome. In doing so each member of the coalition will maximize their proportion of the total outcome. This gives rise to the "strength is weakness" paradox of coalition theory (Gamson, 1964). The strongest faction will be the least desirable partner because they will command the largest share of the final rewards (Gamson, 1964 and 1965 and Hartman, 1976).

Coalition theory, then, sees power as a function of potential for coalition formation (pivotal power) as well as behavior (the actual formation of a coalition). In addition, Caplow (1968) states that parties' perceptions have an influence on the power relationship. He argues that three parties with equal pivotal power may maintain a balance of power in order to remain autonomous. In such a situation, the only thing preventing a relatively strong party from exercising power over a weaker party is the perception that if such a power move is attempted, the weaker opponent will or may form a winning coalition with the third party. Consequently, power can be the possibility of coalition formation, the perception that two or more others will form a coalition, and/or the act of forming a coalition.

Power from this theoretical viewpoint is multidirectional. Any party may form a coalition or at least give the impression that she or he intends to. For example, a union may enlist the aid of another union in staging a slowdown or walkout. In bargaining, particularly in the public sector, both sides attempt to form a coalition of sorts with the public in order to gain the valuable resource known as "public opinion." As previously mentioned, union and management bargaining groups are already coalitions which represent larger coalitions. Consequently, it cannot be said that coalition power is unidirectional.

Furthermore, power in this sense must also be shareable. Both (or all) parties have an equal opportunity to gather support for their position from within their ranks as well as from outside sources. While one party may be more likely to form a coalition or

have more opportunities to do so, this does not eliminate the opportunities of the other to seek out and develop coalitions of its own.

Power may be seen as both a possession and an available resource from the point of view of coalition theory. Since both sides are, in fact, coalitions already, it can be said that the parties possess the strength of numbers to some extent. However, if we consider public opinion, for example, as a resource then it can only be seen as an available resource and not as a possession of one party because public opinion changes with the circumstances.

Finally, there is some difficulty in determining whether power is a general capability or a situation specific variable. One could argue that any party is always capable of joining up with some outside source of additional resources, thus they are generally capable of gaining power through coalition formation. On the other hand, power will be determined by the particular outcomes desired by the parties and the particular resources necessary to achieve those outcomes. In collective bargaining, management always controls economic resources (wages) and labor always controls productivity resources (the work force). The amount of money and the size of the work force, however, is in constant flux. Consequently, every different situation will call for different amounts of resources and subsequent changes in the pivotal power of the parties.

In conclusion, power, as defined by coalition theory is determined by the amount of resources one has relative to the amount of resources held by and available to all other interested parties. As such, power is: 1) exhibited in the parties' behavior or seen as

a potential resource tempered by the perception of one's opponent(s); 2) exercised by all parties in a relationship; 3) shared, to some extent, by all parties; 4) both a possession of the parties (at least in the bargaining context) and an available resource; and 5) determined by the particular situation in which the parties find themselves. It should be noted that in the bargaining context the bargaining groups themselves do not form coalitions except in the sense that they try to gain the support of most (if not all) of their constituents for the decisions they make at the bargaining table. They may refer to support given to them by outside groups but they do not bring more people to the bargaining table in order to overwhelm the opposing team with sheer numbers.

Psychological Theories

Psychological theories of power are founded on two fundamental approaches to the psychological dynamics of interpersonal relations. The first focuses on the psychological state of the source of the influence attempt and the second focuses on the target of such attempts.

According to Kipnis (1976) power is a game with certain incremental and necessary steps.

1. A person experiences an aroused need state.
2. The individual musters the necessary resources to influence another.
3. Finally, the individual takes action to satisfy his or her need.

He argues that we must analyze the resources and the psychological

state of the power user.

Both units of information are needed to predict the behavior of the power holder since the combination of an aroused power need and the possession of resources can be expected to lead to action, while the absence of either will lead to inaction. (Kipnis, 1976, p. 38).

Furthermore, the individual's attitude toward the influence target will determine the choice of power tactics (Michener & Schwertfeger, 1972). If the target is well-liked, then value-change tactics are more likely to be used. If the target is disliked it is likely that destructive tactics will be used. Michener and Schwertfeger add that nondestructive tactics may also result from a fear of destructive retaliation or strong counterinfluence (1972). Influence attempts then, are the result of an aroused need which can only be met by inducing behavior in others, the perception that one has sufficient resources to influence successfully, and choices made based on one's attitude toward the influence target.

The second approach focuses more on the need state of the target. Spector explains:

A person employing power is imposing driving and restraining forces on the life space of another individual to induce change in the target's valence for various goal objects. (Spector, 1977, p. 611)

Illich's (1980) definition of power negotiating is quite similar: power is "the ability of the negotiator to motivate an opponent in a manner that is favorable to the negotiator's negotiating objectives" (p. 2). Cohen further explains that successful influence attempts depend on tying one's goals to the needs and goals of one's opponent in bargaining (1960).

So the first approach focuses on power as determined by the power user's needs and perceptions while the second approach focuses on the necessity of tapping into power targets' needs, drives, and motivations.

Level of aspiration theory (Siegel & Fouraker, 1960) is an example of the latter perspective. It deals with the reaction of an influence target to the concession-making behavior of the influence source. This theory is based on the assumption that small concessions, made only after a concession by one's opponent, will cause the other to lower his or her aspirations. Naturally, this would be advantageous to the tough bargainer. Thus, small, reciprocal concessions serve as a restraining force on one's bargaining opponent. Therefore, they are a manifestation of power.

Similarly, a great deal of research has been done on the effect of threats on bargaining behavior (Deutsch & Krauss, 1960, 1962, 1966; Hornstein, 1965; Tedeschi, Linkskold, Horai & Gahagan, 1969; Tedeschi, 1969; Gahagan & Tedeschi, 1969; Tsjovold, 1973; and Tedeschi, 1976). These studies assume that the use of threat can serve as both a driving force and as a restraining force on one's opponent. Threats may compel a target to comply with a demand or they may deter her or him from performing an undesirable act (Schelling, 1966). The literature on threats and their effects makes a distinction between two types of power.

If A's power is such that he has available the potential for delivering a number of different outcomes to B, fairly evenly spread across the range which defines amount of power, A may be said to have precise power. If A has few responses, e.g. he can either deliver his most severe punishment or

not punish at all, he may be said to have imprecise power. (Smith & Leginski, 1970, p. 60)

This view of power is very much like the definition offered by both field theory and social exchange theory in that the power manifested in threats is related to one's ability to punish the other.

These two broad approaches to the psychological determinants of power are integrated by Minton (1972) in his discussion of power and personality. He states that power is, "a product of both one's immediate environmental structure and one's past experiences in attempts to carry out intended effects" (p. 129). The immediate environmental structure is a function of the driving and restraining forces at work in any given situation. Past experiences will influence the arousal of need states as well as the perception of ability to carry out one's will successfully. Both perspectives call for a similar conceptualization of power with two significant exceptions.

Power, in the view of the psychological theories is primarily a function of actor's perceptions. An actor perceives a need, the existence of sufficient resources to fulfill that need, the ability of others to punish, and the likelihood of successfully achieving his or her goals. In addition, potential plays an important part in determining power from a psychological perspective. Kipnis argues that power results, in part, from sufficient potential to influence (1976); Illich refers to the ability to motivate an opponent (1980); Hornstein argues that the deterrent function of threats is served if the target perceives the source as having sufficient threat potential (1965); and Smith and Leginski equate both precise and imprecise

power with the potential for influencing the other's outcomes. Finally, behavior also plays a small role in power determination. Theorists and researchers have indicated that power dynamics and power perceptions can be effected by certain behaviors, most notably concession-making patterns (Siegel & Fouraker, 1970) and threats (Deutsch & Krauss, 1960, 1962; and others). In fact, Kipnis goes so far as to claim that power must be manifested in action (1976). Since psychological theories deal with personal psychological processes, there is some disagreement about the direction and locus of power as viewed from this theoretical perspective. This confusion, however, stems from the limited scope of the theory which gives rise to the problem. The first perspective argues that power stems from one's aroused needs and perceived ability to influence others. This implies that power is both unidirectional and zero-sum. That is, power is exercised by an individual with an aroused need and not by the person(s) he or she might be influencing. Furthermore, to the extent that the influence source has resources to carry out her or his attempts, the target(s) have no recourse. Thus, as the source's resources increase, the target's power decreases. The major weakness of this analysis is that it ignores the needs and resources of the target. If, in fact, the target has needs and resources, just as the source does, then power must be both multidirectional and shareable.

The second perspective, which focuses on the target of driving and restraining forces, suffers from the same weakness. It implies that these forces flow from the source to the target and thus power is unidirectional. However, this approach fails to

recognize that when two parties interact, each is a source and a target, each compels and restrains the other simultaneously. Therefore, power is multidirectional and shareable in that it is attempted and exercised by all parties in a relationship.

As the preceding discussion suggests, power is also an available resource as opposed to a possession of one party or another. Needs, psychological forces, threats, and concessions are not possessions of a given individual. Rather, they are psychological states or actions which any individual might experience, draw upon, or utilize at any given moment. As with social exchange theory, even the resources one controls change in amount and type as time goes by, thus they too, are merely available to the power user, not possessed by her or him.

Finally, it is clear that the psychological theories also view power as situation specific. Different needs manifest themselves at different times (Maslow, 1962). Since each individual is psychologically unique, the need states, resources, and driving and restraining forces at work will certainly differ from one context to another as well as from one relationship to another. As Minton has pointed out, power grows out of one's immediate experience as well as one's past experiences and both of these factors are always changing (1976).

In conclusion, if it is assumed that the psychological determinants of power influence all parties in an interaction in similar ways, then power must be viewed as: 1) determined by perceptions, potential, and the behavior of the parties,

2) multidirectional, 3) shared, at least in part, by all parties, 4) available to the parties, not possessed by them, and 5) specific to the situation in which the parties find themselves.

Interaction Approach

A fifth way of explaining human interaction is the interaction approach, otherwise known as the relational perspective. This approach is founded in the work of Bateson (in Watzlawick, Beavin Jackson, 1967). The founding principles of this approach are:

1. Every communicative act has a content aspect and a relationship aspect (Watzlawick, et al., 1967).
2. In every communication exchange the interactants attempt to define or redefine their relationship (Haley, 1959).
3. The most useful focus of communication analysis is the interaction behavior of the people rather than the individuals themselves.

This perspective assumes that the individuals' motivations, resources, abilities, needs, intentions, etc. are irrelevant. The only relevant and useful data about a relationship is the pattern of interaction behaviors. For instance, Turk says:

Group action can be explained only in terms of interactional patterns, thus we recognize that individual goals are "unknowable" and sometimes unknown even to the individual and that outcome is not the doing of a single individual or party. (1974, p. 49)

Thus, it is the communication between the parties that defines the relationship between them.

Most importantly, Wilmot, et al. (1981) state:

The relational approach to communication stresses to understand a relationship, one needs to focus on the control dimension--how the individuals exert power over one another. (p. 61)

As early as 1959, Cartwright pointed out that "communication is the mechanism by which interpersonal influence is exerted" (p. 7).

However, since a relationship is defined by both parties, a fourth assumption becomes crucial to the understanding of power in human relationships.

4. No power move can be said to reflect power on the part of one party unless followed by a submissive move on the part of the other party (Wilmot, 1978). In other words, "you do not have power--it is given to you by others with whom you transact" (Wilmot, 1978, p. 105).

Power, then, emerges out of the relationship. As a function of interaction, power is equated with conversational control (Rogers & Farace, 1975 and Wilmot, et al., 1981). This approach calls for a view of power which is reflected in certain types of communication acts such as interruptions, commands, challenging questions, etc. A slightly different approach is taken by Illich (1980) who claims that it is the negotiator's language which is the vehicle of negotiating power. He says,

In virtually every negotiation, it is, in the final analysis, your spoken and written words that will ultimately be the factor that determines whether or not you accomplish your negotiating objectives. (p. 91)

This claim is supported by Karrass (1974) who points out that power is exerted each time a demand, concession, threat, or promise is made because the way in which these behaviors are performed alters

the final outcome by influencing the opponent's perceptions. The determinants of power then, are the behavior of the interactants in relation to the perceptions and responses evoked by those behaviors.

Power from the relational perspective is generally seen as a function of pairs of communicative acts or, a cue and its response (Cushman & Craig, 1977). Each set of behaviors indicates the power relationship between the interactants. Systems theorists argue for the importance of perception in determining relative power. In fact, they claim that the participants' behavior is simultaneously determined by and a determinant of the parties' perceptions of relative power (Haley, 1959; Watzlawick, Beavin, & Jackson, 1967; and Wilmot, 1979). Consequently, bargainers' perceptions (of power and of their relationship) are just as important as their behavior according to the interaction approach.

Since power is a function of both parties' communication it must be multidirectional. By definition both parties have equal input into the determination of relative power. In addition, power is shareable in the relationship. Although two parties may define a relationship in which one is dominant and the other is submissive, the dominance may shift as the topic of conversation changes (Wilmot, 1979). Frost and Wilmot imply that the shareable nature of power is absolute when they propose that "one cannot not use power" (1978).

The interaction approach in general and the notion of relative power in particular prohibit a conceptualization of power as a possession of any party. Events and interactions are

transformed into a system of relative power through the behavior of all parties involved in an interaction (Douglas, 1957). Power is not possessed by the parties but rather, it is determined in the acting out of a conflict (Coser, 1967). In any case, power is a product of the interaction--the relationship--not a possession of one or more actors.

It should be obvious from the preceding discussion that power is not a general capability which carries over from relationship to relationship. If, indeed, power emerges out of a relationship, and if every relationship is being constantly defined and redefined, then relative power is established, reestablished or modified with each exchange between interactants. It changes from relationship to relationship, from topic to topic, perhaps even from moment to moment. Indeed an actor may give in to a power tactic one minute and reject the use of that same tactic a short time later.

In summary, the relational approach to human interaction requires a definition of power that 1) focuses on the parties behavior in relation to each other with some attention given to how that behavior might be perceived, 2) recognizes power as a function of all parties' input--it is multidirectional, 3) sees all parties as equally responsible for the relative power in the relationship--it is shared, 4) recognizes it as an available resource, not a possession, and 5) sees it as determined differently in each and every situation.

Mathematical/Probabilities

Model

The mathematical/probabilities model assumes that any choice or move by one party will change or affect possible choices of

response of the other (Watzlawick, 1976). Kahn and Boulding (1964) put it succinctly: "power is the ability of one person or group of persons to. . . . change the probabilities that others will respond in certain ways to specified stimuli" (p. 4).

This model of the analysis of conflict behavior is represented by two theoretical representations of human choice-making processes. First, the game theoretical approach looks at behavior and choices as a function of payoff matrices. The most widely used matrix game is the Prisoner's Dilemma (Rapoport & Chammah, 1965) in which the parties' outcomes are determined by their own choices in relation to the choice of the other. This game is a limited option game in which each player has only two choices. A sample matrix illustrates the possible outcomes for the players (Figure 1).

		Player B	
		b_1	b_2
Player A	a_1	+5 +5	+8 -5
	a_2	-5 +8	-3 -3

Figure 1

Power, in this case, is the ability to influence the outcomes of the other player. For instance, in the above matrix, if A chooses a_1 , it guarantees a positive payoff for B while a choice of a_2 , insures a negative outcome for B. Therefore, while the positive and negative outcomes differ slightly, A exerts considerable control over B's outcome, and, in this case, B has equal control over A's outcomes.

Two types of control or power are identified in the literature: fate control and behavior control (Thibaut & Kelley, 1959). A player has fate control when her or his choice inevitably leads to a certain outcome for the other no matter what choice they make. The following matrix illustrates a matrix in which A has fate control over B (Figure 2).

This matrix also illustrates an instance in which B exerts behavior control over A. That is, B's choice leaves A with two distinct alternatives, one of which is clearly more desirable than the other. B is said to have behavior control because he or she can, in effect, force A to choose a_1 by making a choice of b_1 since A, seeing that B has chosen b_1 will certainly choose a +5 outcome to a -5 outcome.

		Player B	
		b_1	b_2
Player A	a_1	+5 / +10	-5 / +10
	a_2	-5 / -10	+5 / -10

Figure 2

It should be noted that there are two key weaknesses to this approach when comparing it to actual conflict behavior. First, it assumes that the payoff matrix is known to both parties, when in fact the parties rarely know what the consequences of a given choice or action will be. Second, it assumes that the parties have only two alternatives from which to choose in generating conflict behavior. In reality, it is a rare occasion when any party to a conflict has only two options. In short, the mathematical model is overly simplistic and it overestimates the base knowledge of the parties (Steinfatt & Miller, 1974).

The second approach involves the probabilities that the players will make certain choices. This approach is based on the notion of subjective expected utilities (SEU) (Walton & McKersie, 1965).

Inasmuch as there are both potential positive and potential negative consequences associated with a given demand, the SEU of an alternate demand (x) is its utility (U) times the probability (P) that it will be acceptable plus the strike costs (s) associated with a failure to agree times the probability (1-p) that the demand will not be acceptable.

$$SEU = P(x) \cdot U(x) + [1-P(x)] \cdot S(x) \quad (p. 37)$$

Simply stated, when faced with a choice between alternative actions, an actor weighs the possible benefits and the probability of gaining them against the possible costs and the probability of incurring them. In this case the equation applies directly to the bargaining situation but other theorists deal with probabilities in a broader sense (Harsanyi, 1962).

Power, from this point of view, is equal to the probability that B will comply with A's demands (Dahl, 1957). Gamson (1968) defines

power as a subjective probability determined by the likelihood that B would have complied without A's efforts to bring about B's choice. These two definitions of power are both important but incomplete. Cavanaugh, et al. (1980) combine the two in saying that power is the difference between the probability that B would have chosen a particular alternative without A's efforts and the probability that B will choose that alternative with A's efforts. If there is no difference between the probabilities then no power has been exercised, even if B does exactly what A wanted in the first place.

 This approach is more realistic in that it does not limit the number of alternatives for the parties. Neither does it assume that there are a fixed number of outcomes known to the parties. The major weakness of the subjective probability approach, however, is that the cognitive processes of the actors are not quantifiable (Chertkoff & Esser, 1965). Consequently, there are no reliable or valid measures of the amount of power in any given situation.

 The mathematical probabilities approach offers no resolution to the question of whether power is based on behavior, perception, or potential. If power is measured by the ability to manipulate an opponent's outcomes based on a set payoff matrix, then it must be defined as a potential of the actors. The notion of fate and behavior control, however, requires that power be defined as a function of the actors' choices, their moves or behavior. If, on the other hand, subjective utilities and probabilities are the defining factors of power, then it is by definition a function of the actors' perceptions. In other words, it is not the behavior which defines power but the perception of the behavior and the

perceived likelihood that the behavior will have the desired effect.

In addition, power is multidirectional. The payoff matrix approach assumes that both parties' choices determine the final outcome (Watzlawick, 1976). Although it is possible to construct a matrix in which one party's outcomes are fixed regardless of the other's choices, such matrices are unlikely to occur in natural settings. The subjective probabilities approach views power similarly, in that one party's choices influence the perceptions of the other party and vice versa. Thus, all parties exert some influence over the final outcome.

Power is also seen as shareable. Each party is dependent, to some extent, on the other to determine the outcome (Watzlawick, 1976). A's behavior alters B's options; B's subsequent choice alters A's options; A's next choice, in turn, alters B's options further, and so on until an agreement is reached. Every choice by every party has some effect on the subjective probabilities of gaining any given desired outcome.

Like most other theories, the mathematical/probabilities model treats power as an available resource and not as a possession of the parties. Even in a matrix game where certain fixed payoffs are known to the players, influence over the outcomes is something one uses, not something one has. In the case of subjective probabilities, one alters the probabilities through strategic choices available to her or him. Power is established in the acting out of the conflict, it is not a possession brought into the situation by one or more parties.

In light of the analysis above, it is clear that power is situation specific. In each different relationship the theoretical payoff matrix is different so, the relative power is different. Indeed, the payoff matrix may change as the parties move from topic to topic. In addition, the parties' perceptions of probabilities and outcome values will change somewhat with each interaction. Therefore, power is determined differently in each situation and does not carry over from one context to another.

Power then, as seen from the perspective of the mathematical/probabilities approach is: 1) a function of actors' potential, which influences their behavior, which alters their perceptions; 2) exerted by all parties in a conflict; 3) shared by the parties as a result of their interdependence; 4) available to the parties as opposed to being a possession of one or more parties; and 5) specific to each situation or context.

These various theoretical approaches to power agree in some respects and disagree in others regarding their different conceptualizations of power. All the theories agree that power is multidirectional. It is axiomatic, then, that power is exerted by all parties in a relationship. This is reflected in the notion that the parties are interdependent (Watzlawick, 1976), that they cannot not use power (Frost & Wilmot, 1978), and that power grows out of the relation between the parties (Rogers & Farace, 1975). In addition, there is no disagreement about the situation specific nature of power. One may use the same resources, tactics, punishments, etc. in different situations but they will always be perceived differently and with different effects on the relationship.

Three conceptual issues, however, remain unresolved. There is some agreement among the various theories on the question of whether power is a function of actors' potential, their behavior, or their perceptions. All the theories agree that power is determined through a combination of these determinants. In fact, the remaining two unresolved issues are only unresolved because certain theories view power as: 1) both shareable and zero-sum and 2) both a possession and an available resource. In order to bring some closure to the theoretical and conceptual issues involved in the definition of power, the following explanations are offered to account for this partially unresolved state of affairs.

A fundamental assumption of this paper is that power is multidimensional. Each of the theories examined here has some validity although they all approach power from a different perspective. It would be a grave conceptual error to assume that power is purely a function of actors' potential, their perceptions, or their behavior alone. While one or more parties may have a potential source of power, that potential may be irrelevant if it is not made clear to the other party through behavior. This notion follows Frost & Wilmot's assumption that power is not something one has, but rather, it is given by the other parties in a relationship (1978).

For example, if A has a great deal of expertise but B does not acknowledge it or perceive it as relevant to the issue at hand, then B is unlikely to be influenced by the potential alone. In such a case, A must demonstrate his or her expertise to B's satisfaction through some form of behavior designed to alter B's perceptions. Karrass (1974) and Illich (1980) argue convincingly

that each action taken by the parties in a negotiation will alter the other's perception of the balance of power. It is evident that power is not a function of any one dimension. It is a result of the interaction between potential sources, behavioral manifestations, and the resulting altered perceptions of all the parties involved. Consequently, any study purporting to measure power must identify and account for the actors' potential power, their perceptions of power, and the acting out of their power relationship. Until the interaction between these variables is more clearly understood, that interaction must be studied descriptively so that a grounded theory of power dynamics might emerge from the otherwise confused and contradictory findings of power research.

The question of whether power is shareable or zero-sum remains unanswered, in part because of the nature of conflict.

Frost & Wilmot define conflict as

an expressed struggle between at least two interdependent parties, who perceive incompatible goals, scarce rewards, and interference from the other party in achieving their goals. They are in a position of opposition in conjunction with cooperation. (1978, p. 9, emphasis mine)

To the extent that the parties oppose each other, they will attempt to increase their power at the other's expense. To the extent that they cooperate they will be willing and able to share power.

Bargaining in particular is generally viewed as a mixed-motive situation. Walton and McKersie argue that bargaining may be distributive (competitive/constant sum) or integrative (cooperative/non-zero-sum) (1965). Consequently, in some respects, one party's increase in power requires a decrease in the other's power. But,

as Gamson (1968) suggests, two groups can simultaneously gain resources (power). Thus, when resources are distributed, power is zero-sum. However, when dealing cooperatively with integrative issues, power is shared.

Finally, there is the question of whether power is possessed by one or more parties or is simply available to the parties. This point of disagreement stems from the fact that power is multi-dimensional. The sources of power associated with a party's potential (resources, existing coalitions, cost imposing abilities, etc.) can be seen as possessions of one or more parties. On the other hand, it is also assumed that each party has available tactics or behaviors that can alter the other's behavior or perceptions and consequently, the power relationship itself.

Power, then, is in part a possession of the parties but one which is subject to change through the effective use of available resources, strategies, and tactics. It is determined by the interaction of the potentials, perceptions, and behaviors of the parties and may be shared or fixed in overall quantity. In addition, it is always exercised by all parties in some way and can only be determined according to the specific situation in which the parties find themselves.

Operational Definitions and Methodological Issues

Having explored the various theoretical orientations toward power and derived a comprehensive definition of the concept and its determinants, the next task is to examine the various operational definitions employed by researchers in the study of power. Although

power related research has attempted to operationalize power in a number of different ways, these varied approaches can be broken down into four distinct categories: 1) power as a function of outcomes, 2) power as a function of parties' potentials, 3) power as a function of perceptions, and 4) power as determined by the parties' behavior.

Power as Outcome

Power as a function of outcome has been operationalized through the use of game simulations. Most games have utilized the payoff matrix as an index of outcome. Disparities between high and low power positions are simulated through the use of asymmetrical payoff matrices in a prisoner's dilemma game (Deutsch, 1958; Solomon, 1960; Deutsch & Krauss, 1962; Grant & Sermat, 1969; Tedeschi, et al., 1969; Tedeschi, 1969; and Gahagan & Tedeschi, 1969). These studies utilized payoff matrices heavily weighted to favor one party in order to empower that player. Power was represented by the possibility of greater payoffs as exemplified in the following matrix. (Figure 3).

		Strong	
		A	B
Weak	A	100 / 100	-200 / 200
	B	110 / 50	-150 / 80

Figure 3

In this situation the Strong player has behavior control because in picking A she or he can expect the Weak player to maximize his or her costs.

Pollard (1974) used a similar scheme in comparing cooperativeness of high power, equal power, and low power players. The high and low power conditions were created by use of a matrix similar to the one above. The equal power position was created by use of a matrix where the payoffs were equal for both players. Thus, power is operationalized in the extant literature by giving one person control over another's outcomes.

Family power literature offers at least two additional approaches to the notion of power as outcome. First, families are given decision-making tasks and power is attributed to members who initially held opinions or offered solutions which were reflected in the final decision (Turk & Bell, 1972; Olson & Rabunsky, 1972; Hadley & Jacob, 1973; and Klopfer, Tittler, Friedman, & Hughes, 1978). Second, some measures are based on points awarded to players in a game simulation (Turk & Bell, 1972 and Hadley & Jacob, 1973).

Power as outcome then, has been studied primarily through the use of artificial game situations. Only a few studies have used actual decision-making tasks to assess outcome. The major weakness of the use of decision-making tasks is that the researchers have assumed that if a member holds a particular opinion or is the first to suggest a solution which is later accepted by the group as a whole, that member has power. This does not take into account the fact that several, or maybe even all members, may have been predisposed toward that opinion or solution. Or perhaps another,

more powerful member lent support to a position which was originally suggested by a relatively low power group member.

The use of asymmetrical matrices in a PD game to simulate power equates power with an artificial situation in which it is assumed that the players are fully aware of the payoffs and consequently, have a clear and accurate understanding of their relative power throughout the game. This assumption is obviously unrealistic and casts serious doubts on the validity of such an approach to the measurement of power.

Power as Potential

The most common approach to the operationalization of power as a potential of the parties is the equation of power with threat potential. The most common vehicle for this approach is Deutsch & Krauss' trucking game (1962). In the game, players have the ability to prevent their opponent from using a shared trucking route by closing an access gate. Players' threat potential stems from their ability to inform the other that they intend to close the gate. When only one player has the ability to use a gate she or he is in a high power position. This condition is equated with "greater control of initial resources" (Apfelbaum, 1974). Several researchers have used this game to test the behavior of high and low power individuals in conflict (Deutsch & Krauss, 1960; Hornstein, 1965; and Horai & Tedeschi, 1969). The control of a different kind of resource--money--was used in an experiment by Greenberg (1978) to test the effects of retaliative power (the effect of the knowledge that each player

would control resource distribution on alternate trials of a distribution game).

Shomer, Davis, and Kelley (1966) modified the basic trucking game to include an alternative route which players could use instead of the main trucking route. The existence of an alternative route for one player presumably decreases the power of the other (Thibaut & Kelley, 1959). The addition of attractive alternative relationships was also introduced as a variation to the PD game by Thibaut & Gruder (1969) to manipulate the traditional power relationship in that context.

A final approach to power as potential is reported by Berger (1980) in his review of family power research. He reports on a number of studies done in several different countries variously equating conjugal power with: 1) income level, 2) educational level, and 3) occupational status. Although cross cultural comparisons yielded mixed results, the studies generally concluded that husbands with higher status, in relation to their wives, had greater power.

Potential, as a determinant of power, has been equated with control over initial resources, ability to impose punishments or block goal achievement, and presence of alternative sources of outcomes. The trucking game suffers from one of the same basic weaknesses encountered in the PD game. That is, it is an artificial situation with only one channel of communication and only two choices available to the players (cooperate or compete). In this respect it is unrealistic. The availability of alternative outcome sources adds an extra choice but it has only been offered within the confines of a limited game situation. The use of relative income, education,

and occupational status is more realistic but it is much easier to compare these variables for husbands and wives than it is to compare bargaining teams on these same variables. It does suggest that management bargains from a position of relative power since the workers are generally paid less, less educated, and, by definition, of lower occupational status than the management.

Power as Perception

The notion of perceived power has received much attention in the literature. The pioneer work in family power relied heavily on self reports and that tradition has been carried on through the years (Blood & Wolfe, 1960; Center, Raven, & Rodrigues, 1971; Olson & Rabunsky, 1972; and Turk & Bell, 1972). These self reports were primarily concerned with who has the greatest influence over decisions. The original study asked only wives to respond and dealt with general decision areas (Blood & Wolfe, 1960). Centers, et al. (1971) expanded the general decision areas to include more decisions typically made by wives. The Olson & Rabunsky (1972) study used both husbands and wives as respondents and asked them to predict the amount of expected influence in a specific decision making task. Finally, Turk & Bell (1972) asked children to respond as well as the parents and, in addition to the general decision areas used by Blood and Wolfe (1960), they asked two broad-based questions: Who wins disagreements? and Who is the boss?

Although each of these studies is an improvement on those which came before, they all suffer from the same major weaknesses. First, the self reports do not correlate with interaction measures

(Olson, 1969; Olson & Rabunsky, 1972; and Turk & Bell, 1972).

Second, while they do offer at least one measure of who has power (however unreliable it may be) they offer no explanation of the determinants of power.

A similar use of self reports is evidenced in a study by Paxton (1974). This study asked student, staff, and parents at a federal school which group was the most influential. The responses of the various groups showed no correlation between the groups opinions. In fact, the study found that each group rated themselves as the least influential.

One early study did use a measure of perceived power which correlated with a supplementary behavioral measure (Lippitt, Polansky, and Rosen, 1952). Groups of boys at a summer camp were asked to respond to the question "Who can get others to do what he wants?" The researchers then observed the boys' activities to determine which ones actually got the others to do what they wanted. Lippitt, et al. (1952) found a significant correlation between attributed power and manifest power and found that the boys were highly accurate in ranking themselves within a power hierarchy at the same level that the other group members ranked them. In addition, the high power member's behavior was seen by observers as consisting of more frequent and more directive influence attempts resulting in more successful influence.

The failure of the more recent studies to replicate the positive correlations found in the Lippitt, et al. (1952) study may be due to two significant differences between this and the other studies. First, this study, unlike the others used same-sex peers,

who, in all probability had similar definitions of power. The similarity in their power definitions may have been due to the clear operational definition offered in the question they were asked. A second, less obvious, distinction is that young boys may be more direct in their power attempts because they have not been socialized to disguise their power attempts. Recent studies suggest that subtle, nonverbal, camouflaged power techniques may be preferable because they will meet with less resistance and because overt control attempts lead to negative evaluations of the controlling individual (Salifion-Rothschild, 1970 and Bochner, Kaminski, & Fitzpatrick, 1977). While there is no empirical evidence to support the claim that children are not subject to the same restrictions as those suggested in these other articles, it seems possible that these boys were more open about their influence attempts and were, therefore, more accurate in their perceptions of the power hierarchy in the groups.

A final approach to the determination of power through self-reports is reflected in the research on compliance-gaining techniques (Marwell & Schmitt, 1967 and Miller, Boster, Roloff, & Siebold, 1977), influence tactics (Kipnis, Schmidt, & Wilkinson, 1980), and power tactics (Cavanaugh, et al., 1980). These researchers used essays and questionnaires to discover acceptable and commonly used power and influence behaviors. This approach seems to be the most applicable, especially in the bargaining setting because 1) the respondents were from an organizational/business setting and 2) the power tactics identified by the respondents constitute actor-imposed determinants of power (as opposed to the researcher imposed

determinants of the other studies). Thus, these studies are concerned with determinants of power and the power tactics are probably more valid in that they are derived from the responses of the subjects rather than the speculations of the researchers. This is consistent with the theoretical assumption that power is a function of actors' perceptions (Spector, 1977; Karrass, 1974; and Illich, 1980).

Power as Behavior

This method of operationalizing power attempts to equate certain behaviors and behavior types with power. Behavioral indicators of power fall into categories in the research: 1) interaction variables which lend themselves to quantification and 2) behavior types which require qualitative judgments on the part of the researcher.

Four interaction variables are commonly used as power indicators in the literature. Talk time is considered to be an indicator of power in that time is considered a scarce resource (Mischler & Waxler, 1968). Thus, the individual who talks most can be seen as exercising control over a scarce resource. Many researchers have measured power according to relative talk time (Mischler & Waxler, 1968; Hadley & Jacob, 1973; Klopfer, et al., 1978; and Wilmot, et al., 1981). Mischler and Waxler (1968) do caution, however, that a powerful person may, in fact, require very little talk time to exert control over a group.

Another power indicator is the amount of talk or the number of contributions offered by a person. This variable may be used more for its ease of quantification than for any other reason since it

cannot be an absolute indicator of power any more than talk time is. Consequently, researchers who have used this as an indicator of power have always used it in conjunction with other measures (Golembiewski, 1962; Mischler & Waxler, 1968; Turk & Bell, 1972; and Wilmot, et al., 1981). A related variable which has also been used to supplement other measures of power is amount of communication received (Mischler & Waxler, 1968 and Klopfer, et al., 1978).

The fourth interaction variable, and the most widely used indicator of power, is interruptions or talk-overs. Researchers assume that interruptions are a clear attempt to establish power in a relationship. Consequently, the number of interruptions and talk-overs have been used in several studies and in at least two coding schemes designed to determine relative power (Mischler & Waxler, 1968; Turk & Bell, 1972; Hadley & Jacob, 1973; Rogers & Farace, 1975; and Donohue, 1978).

The second category of communicative determinants of power is not as easily quantifiable. This category requires researchers to code certain types of behavior based on the assumption that they reflect or lead to greater power on the part of the user. One of the first attempts to develop a taxonomy of power related behaviors appears in the work of Bales (1950). He suggests that interactants exert instrumental control over a task through the expression of questions and answers, opinions, and suggestions. The control aspect of communication was most strongly connected to the act of suggesting although it is clear that if a suggestion is not followed up by the other person(s) in a relationship, it would have to be considered an unsuccessful control attempt.

More recent studies have examined threats and promises as indicators of power. Using social exchange theory as a theoretical base, researchers have argued that promises tend to decrease others' costs. Tedeschi (1976) reviewed over 80 studies exploring the effects of threats and promises and concluded that these types of behavior do indeed alter the power relationship between two or more parties. Most bargaining literature includes some discussion of the effect of threats and promises and these behaviors are standard categories in negotiation coding schemes (Anglemar & Stern, 1978 and Donohue, 1978).

Several additional qualitative types of behavior are discussed in the work of Rogers and Farace (1975) and Donohue (1978). Both studies developed coding schemes based on the assumption that relationships (and power within those relationships) are defined by the interaction between the parties rather than the efforts of any single interactant. The former coding procedure is designed for use in interpersonal exchanges and measures conversational control. The latter is designed for bargaining contexts and measures relative advantage (bargaining power). These two coding schemes are of particular interest because they focus on power in relationships.

Code categories representing message forms and response modes that are viewed as control maneuvers toward one-up are: nonsupport responses, including questions demanding an answer, answers with substance, instructions, orders, disconfirmations, topic changes, complete statements of initiation, and talkovers except supportive talkovers and those with unclassifiable response modes. (Rogers & Farace, 1975, p. 232)

Mischler & Waxler (1968) and Bales (1950) have already equated questions with power and talkovers have also been previously

identified as indicators of power. However, the Rogers and Farace scheme (1975) adds seven more behavior types to the list of "powerful" behaviors: 1) nonsupport, 2) answers, 3) instructions, 4) orders, 5) disconfirmation, 6) topic changes, and 7) initiations. These behaviors all reflect power attempts and cannot be equated with power unless the other person(s) respond with a one-down or one-across (submissive or neutral) message.

Dononue's coding scheme (1978) identifies seven powerful behaviors at two levels of intensity. High intensity power attempts include: 1) charging the other with fault, 2) threats and promises, and 3) topic changing. Low intensity power moves include: 1) initiation, 2) nonsupportive talkovers, 3) charging and denying a charge, and 4) making an offer. With the exception of threats and promises, these behaviors correspond closely to those suggested by Rogers and Farace (1975). Donohue (1978) had discarded the question, instruction, and order categories on the grounds that these behaviors did not appear in his pilot study.

It is interesting to note that the coding schemes fail to utilize any interaction variables other than talkovers. In light of the findings of Folger and Sillars (1977) who discovered that naive observers saw both talk time and interruptions as far more dominant than the behavior types used in the coding scheme they tested. Thus it would seem to be a serious methodological error to rely on coding schemes alone as an indicator of relational power. Two additional issues raised by the Folger and Sillars (1977) study further question the reliability of coding schemes as measures of power.

First, it appears that certain behavior types are inconsistent as indicators of power. That is, sometimes the observers rated a particular behavior type as powerful while at other times they saw a behavior of the same type as mildly dominant or even neutral. Furthermore, observers reported that tone of voice, posture, and facial expression also influenced their perceptions of who was dominant in a given situation but existing coding schemes do not account for nonverbal indicators of power. Safilios-Rothschild (1970) supports the consideration of nonverbal influence tactics in pointing out that submissive persons use more nonverbal influence techniques in order to avoid rebuffs and resistance from the more dominant relational partner.

Two problems plague power researchers when they attempt to use coding schemes as an indicator of power. First, no coding scheme focuses on power dynamics as the primary variable of interest. Only one coding scheme has a specific method for identifying power and this system ignores the perceptions of the actors (Donohue, 1978). This serves to illustrate the second problem, which is lack of validity. Actually, existing coding schemes have not been shown to lack validity but neither have they established it. Coding schemes are universally evaluated on interrater reliability but validity checks are conspicuous in their absence from these studies. Establishing the validity of a coding scheme is a must, given the fact that every existing scheme is generated from theory rather than from participants' perceptions. Folger and Sillars (1977) and Poole and Folger (1981) have clearly indicated that participants' perceptions are crucial in establishing the validity and utility of

interaction coding. This study will attempt to resolve these problems by generating a coding system based on the participants' perceptions of power related behavior. The coding will be performed by trained coders in order to combine the "insider" and the "outsider" perspectives, both of which are crucial in illuminating the complex dynamics which lead to the determination of power in human relationships (Olson, 1981).

In conclusion, outcome and potential measures are based on highly artificial game situations with limited communication between the parties. Self reports of perceived power and predicted power consistently show an inability of subjects to accurately predict who will win or who will exert the most influence. In fact, perceived power measures show a marked difference in the perceptions of the different group members.

Some speculative reasons for the high correlation found in Lippitt, et al. (1952) study have already been offered. Positive correlations between perceived power, outcome measures, and process measures were also found in a more recent study by Klopper, et al. (1978). The unique elements of this study may offer important insight for future researchers. Unlike most outcome and potential studies of power, this study used intact, ongoing groups as opposed to strangers. In addition, the group task (determining goals for family change) was both relevant and "real" in the sense that it had ramifications for future behavior in the group.

The perceived prominence in the group was measured by analyzing the placement order and placement height of figures

(representing family members) on a felt board. Wilmot (1980) suggests that relational definitions are typically more metaphorical and analogic than explicit and literal. Thus, the perception measure used in the Klopper, et al. (1978) study may be much more suited to reflect relational definitions than the explicit questions asked in other measures of perceived power. Furthermore, the family members, having framed the relationships in such a way, are more likely to reflect the relationship definitions in their behaviors (Wilmot, 1980). Berger supports the use of metaphors in saying:

encoding the phenomenal experience of power through verbal language may be difficult. Perhaps the use of figures and their relative placements to index power provides a symbol system more iconic to the experience of power relationships in real life. Thus, these kinds of measures correlate better with noncontent aspects of communication behavior than do self-report measures relying heavily upon verbal language. (1980, p. 208)

Similarly, Bochner (1978) argues for more analogic analysis of communication phenomena. His argument is based on the assumption that all communication has both analogical and digital aspects (Watzlawick, et al., 1967) and to focus on only the digital aspects "is an extraordinary oversimplification of the relational messages exchanged in enduring relationships" (p. 183). He proposes an analysis of the metaphors present in an interaction because they represent the parties' analogies about their relationship. While there is no tested or widely accepted method of analyzing metaphors as indicators of relationship definitions, this study will attempt to identify the analogs present in the interaction of the subjects as a way of further testing the utility of this approach.

In summary, power has been examined in terms of the conceptual issues relevant to its definition, the various theoretical perspectives on social interaction and their influence on the concept of power, and the methodological difficulties encountered in the study and measurement of power. Power remains a difficult concept to define. It has been shown to be exercised by and available to all parties in a relationship, at least to some degree. The addition of the element of situation specificity marks power as a relational concept. Power is relative--it is determined, defined, and exercised differently in each relationship. Relative power is constantly changing throughout an interaction.

In addition, power is multidimensional in that it is determined by at least four different factors. It is determined, in part, before interaction occurs by situational factors (potential) as suggested by field theory, social exchange theory, and coalition theory. Power is also determined during an interaction as suggested by the interaction approach and the psychological theories. In this case the actor's behavior is the principle indicator of relative power, although some consideration is given to the actors' perceptions of that behavior. The third dimension sees power as being determined after the interaction (outcome) as suggested by the outcome perspective of social exchange theory. This retrospective view of power equates it with who gets his or her way. The fourth dimension of power is perception. This dimension overrides and permeates all the other dimensions. If a party does not see the other as having power potential; if he or she does not perceive a particular behavior or behavior pattern as powerful; if she or he does not see the outcome

as favoring one party; then he or she will not grant the other party power. Consequently, this study will look at participants' perceptions of power before, during, and after a bargaining interaction in an attempt to measure and account for these four dimensions of power.

This overriding emphasis on perceptions of power requires a suspension of reliance on theoretical definitions of power since most people are unaware of what power theorists say about power. Participants' assessments of power may or may not correlate with theoretical determinants of power. That remains to be seen. Two of the theories previously discussed pose prohibitive measurement problems. For that reason they will not influence the analysis of the data in this study. Coalition theory does not specify the kind of resources gained when two parties merge. In actual bargaining situations, each team already represents a coalition and it is unlikely that new coalitions will form during the bargaining interaction. Consequently, no coalitions will be allowed in this study. The mathematical/probabilities model measures power according to probability formulae which have no quantifiable elements. This model then, has little utility for power research. The other theories will be considered in analyzing the categories derived from the perceptions of the subjects to see if there is any similarity between what theorists see as the determinants and what participants see as the determinants of power.

Looking at the operational definitions of power, it appears that no single measure is adequate to fully describe power in a

relationship. The few studies that have found correlations between measures are promising in that they suggest that consistent correlations can be found if and when certain methodological problems are resolved. Correlations found in the Klopper, et al. (1978) study suggest that metaphorical, analogic measures of perceived power may be more valid than descriptive, digital measures. Folger and Sillars' (1977) findings also suggest that preconceived, theory-based coding schemes have questionable validity. As Wilmot, et al. (1981) point out, "the arbitrary selection of any index of power is unlikely to accurately represent the operation of power in a given conflict."

The reliability of power research is also questionable if researchers continue to utilize ad hoc groups in their studies. Studies that were successful in finding correlations between measures used actual ongoing groups rather than unacquainted experimental subject. Future research should attempt to use representative groups and to engage them in relevant tasks with at least some semblance of future consequences for the relationship.

Finally, Berger (1980) may be right in suggesting that the general failure to find correlations between different measures of power is due to the fact that they are measuring different dimensions of the construct. Indeed, power may be contextual in that different contexts (marriage, bargaining, boys at play, classrooms, work settings, etc.) call for and reflect different dynamics of power emergence and definition. However, this will remain an unanswered question until future studies of power, in any context, have overcome the problems of validity and reliability that have plagued power research in the past.

Research Questions

In an attempt to clarify the role of participants' perceptions, behaviors, and potential on the determination of power in the bargaining context this study will address the following research questions:

1. Do peoples' orientations toward power influence
 - a. the behaviors they see as powerful?
 - b. their choice of power tactics?
2. Do participants assess power differently before an imposed task than they do after task completion?
3. Do participants' perceptions of power correlate with observers' perceptions of power?

CHAPTER 3

METHODOLOGY

This chapter will briefly outline the research methods used to collect and analyze the data in this study. This discussion will include a description of: 1) the subjects, materials, and data collection procedures, 2) the generation and use of the coding schemes constructed for this study, and 3) the procedures used to analyze the data.

Subjects

The subjects for this study were six bargainers recruited from local bargaining teams in the Missoula, Montana area. The subjects were divided into two experimental bargaining groups, one playing the role of the union team and the other playing the role of the management team. Each team was comprised of two men and one woman. In addition each team had two bargainers from the public sector and one member from the private sector. It was considered crucial to the generalizability of the study that experienced bargainers be used, since most research on bargaining is done with inexperienced college students as subjects.

Materials

The study required twelve copies of the Power Orientation

Scale (POS) and an accompanying decision-making questionnaire (Appendix 1). These scales were used as both the pre-test and the post-test for each subject. Two tape recorders and two 120 minute audiotapes were used to record the pre-simulation discussions for each team, the caucus during the simulation, and the post-simulation interviews.

The recording and administration of the bargaining simulation required: six copies of the "Corn Valley Lumber Bargaining Simulation" (Appendix 3), three copies each of the Union's Confidential Instructions and the Company's Confidential Instructions, two black and white videotape recorders, cameras, and monitors, two microphones, and two hour long videotapes.

Finally, ten research assistants helped complete this study: two ran the cameras and conducted interviews during the bargaining simulation session, four carried out data sorts to generate and check the coding schemes, and four assisted by coding the videotapes. All of the research assistants were graduate or senior level students in the Department of Interpersonal Communication at the University of Montana.

Procedures

Upon arrival at the research site the subjects were asked to fill out the POS pre-test as an indicator of their general orientation toward decision-making, conflict, and bargaining. When all of the subjects had completed this task they were each given a copy of the Corn Valley Simulation General Instructions as well as the confidential instructions for their particular team. (The subjects

were assigned to either the Union or the Company team according to the side they normally represent in their jobs as bargainers).

After they had all had a chance to look over the instructions the two teams were sent to separate rooms with the simulation scoring sheet and instructions to prioritize their options on each issue and to predict how each team would fare on each issue. This pre-simulation strategy session was audiotaped and lasted for approximately forty-five minutes.

The subjects were then reunited in the main room where the bargaining session was to take place. The teams sat across from each other at a large square table. The two cameras were situated above and behind each team such that each camera could record the movements, gestures, and facial expressions of one of the teams for coding later. The principal researcher instructed the teams to speak freely, not limiting themselves to one spokesperson per team and told them that there would be a strict one hour time limit on the bargaining session. The entire simulation was recorded on tape with the exception of a twenty minute caucus during which the videotape cameras were shut off and the teams met and were audiotaped in their separate conference rooms.

Upon completion of the bargaining simulation the teams were again separated and were interviewed by two research assistants (see Appendix 2 for interview questions). The interviews were recorded on audiotape for use in the generation of one of the coding schemes. The subjects were asked to estimate to what degree each team "got its way" on each issue and finally they returned to the

main room to complete the POS post-test packet before being dismissed.

Four of the subjects¹ returned to the research site six days later to view and comment on the videotapes. The subjects were provided with a transcript of the bargaining interaction and were asked to indicate by underlines or marginal notes, what behaviors (either verbal or nonverbal) tended to "get the other team to move in the desired direction." Following the viewing of both tapes the subjects engaged in a brief discussion of general bargaining tactics while the principal researcher took notes. Finally, the subjects were thanked for their help and cooperation; the transcripts were collected (with each subjects code number marked on them) and the subjects were dismissed.

Generation of the Coding Schemes

Two sets of coding categories were used in this study, each generated from a different set of data. The first coding scheme was generated from the subjects' responses to the post-simulation interview sessions. The principal researcher listened to each teams interview tapes, extracting all references to power or influence tactics and strategies. These strategies and tactics were recorded on notecards with the code number of the subject who made each suggestion on the back. The second coding scheme was generated from the notes the subjects made while watching the videotapes of the

¹Two of the company team participants failed to show up at the viewing session at the agreed upon time due to unexpected business commitments.

simulation. Each underlined statement or marginal note was recorded on a notecard with the code number of the individual who saw that behavior as powerful recorded on the back.

Forty-one tactics or strategies were extracted from the interview data while forty-five power moves were indicated by the subjects while watching themselves on tape. Each set of notecards was kept separate throughout the following procedures. Both sets of tactics are listed in Appendix 4.

Two research assistants were asked to sort both sets of cards into logical categories. They each separated both sets of cards into three categories. These two sets of categories for each set of cards were compared using a simple agreement matrix (Appendix 4). Using the best agreement of the two sorters, the principal researcher expanded the categories to incorporate all the cards into logical categories. This procedure resulted in the generation of four categories for the interview data and five categories for the videotape data.

Two new assistants were given the categories produced by the researcher and asked to separate each set of cards into its respective set of categories. This procedure allowed for a check on the reliability of the two sets of coding categories by subjecting the second set of card sorts to Cohen's Index of Agreement (Cohen, 1960). The coding schemes were then ready for use in analyzing the videotapes.

Coding the Data

The data to be coded were the two hour-long videotapes of the

bargaining simulation. Two independent coders were trained in the use of each coding scheme by the principal researcher. The training consisted of providing each coder with a brief written description of the categories they would be using and reading several examples of the behavior associated with each category from the cards belonging to that category. All four coders viewed the videotapes simultaneously. The tape showing the Company team was played first and the Union team tape was played second. The coders were instructed to code only the behaviors of the team appearing on camera. They were provided with coding sheets on which to record the number of behaviors exhibited by each subject in each category (see Appendix 4). The unit of analysis for the coders, then, is the subject.

Analysis of the Data

The first research question deals with the relationship between an individual's orientation toward power and 1) the behaviors he or she identifies as being powerful and 2) his or her choice of power tactics in bargaining. To examine this question each subject's score on the POS post-test was compared with 1) the tactics that individual suggested during the post-simulation interview and 2) the actual behavior that individual exhibited during the bargaining interaction (as coded by the observers).

First, each subject's primary orientation toward power was determined by computing the POS post-test scores. Subjects with the same orientation toward power were expected to suggest and exhibit

similar power related behaviors. Since the notecards belonging in each category of both coding schemes was marked with the code number of the subject who suggested it, the number of suggestions made by each subject in each category were recorded. Consequently, it was possible to identify the number of behaviors suggested or seen as powerful by each subject in any given category. Given the small subject pool of this study, a qualitative judgment must be made as to whether any given subject suggested significantly more behaviors in any category than any other subject.

Second, the coding of the data identified the number of behaviors exhibited by each subject in each category. The number of behaviors for each subject in each category was determined according to coder agreement. For instance, if Coder A recorded twelve behaviors for a given subject in a given category and Coder B recorded fifteen behaviors in that category, then the coders agreed that at least twelve behaviors were exhibited in that category. A qualitative judgment, then was made as to whether any given subject exhibited significantly more behaviors in any category than the other subjects.

The second research question asks whether people assess power differently prior to bargaining than they do after a bargaining task. This question was analyzed in two ways. First, each teams' POS pre-test scores were compared to their post-test scores through the use of a correlated t-test. Second, the scores of all the subjects on each dimension of the POS were compared to their post-test scores, again by using a correlated t-test. In this way it was

possible to discover whether there was any change in orientation within each team and whether there was any change overall in the subjects' orientations.

The final research question concerns the correlation between participants' perceptions of the power relationship between the parties and the nonparticipant observers' perceptions of the parties' relative power. Three measures of overall power were used in this comparison. First, the final outcome of the bargaining session was scored according to the scores provided by each team on the simulation scoring sheet. The scores for each issue's outcome were added to provide an overall outcome score for each team. Second, in the post-simulation interview session each subject was asked to indicate how the teams fared in relation to each other on each issue. This was done by having each subject split up a pie chart for each issue to indicate which team came out ahead (see Appendix 2). The final measure was made by adding the total number of powerful behaviors (as marked by the coders) for each team. By determining these totals it was possible to identify which team each of the four coders saw as more powerful overall.

The scores derived from the simulation scoring sheet served as a base measure with which to compare the subjects' and observers subjective judgments of which team was the most powerful. By using numerical values and proportionate measures on the pie charts it was possible to determine the extent to which one team was perceived as exerting more power. Again, the nature of these three gross measures of power requires that they be qualitatively compared.

Chapter 4

RESULTS

The results of the study will be reported here in two main sections. First, the reliability measures for the card sort and coding procedures will be examined. Second, the results pertaining to the three main research questions will be reviewed.

Data Sorts and Coding Reliabilities

Two separate coding schemes were generated and used to analyze the data in this study. The first (CS1) was generated from the forty-one tactics suggested by the subjects in the post-simulation interview session. The second (CS2) was derived from the forty-five behaviors identified (by the subjects) as power moves during the videotape viewing session. Two judges sorted both sets of cards separately. These two independent sorts of each set of data were compared in a simple agreement matrix. The original data for each coding scheme and the matrices of agreement for the independent data sorts can be found in Appendix 4.

The principal researcher constructed a set of four categories for CS1 and a set of five categories for CS2 around the categories derived from the judges' independent sort of the data (Table 1).

Table 1
List of Categories for CS1 and CS2

<u>CS1</u>	Category I.	Increase the amount of information: keep the discussion going, emphasize experience, understanding, and the existence of prior relationships between teams
	Category II.	Increase specificity of information: get clear
	Category III.	Restrict the other team: be inflexible and uncooperative
	Category IV.	Throw the process off balance: confuse, pressure, and distract the other team
<u>CS2</u>	Category I.	Logic and reasoning: present your own or challenge the other teams'
	Category II.	Dead ends: communicate inflexibility
	Category III.	Give and take: exchange offers, proposals, or concessions
	Category IV.	Power cues: nonverbal emphasis, response, or disinterest
	Category V.	Pressure tactics: reject offers, insult, refer to the limits

Tables 2 and 3 outline the results of a second data sort in which two new judges were instructed to separate each set of cards into the categories provided by the researcher. An acceptable level of agreement for this procedure is .70.

Table 2
Matrix of Agreement for the Post-Simulation
Interview Data Sort (by Proportion)

Category	1	Judge A 2	3	4	pB
Judge B 1	.26(.11)*	.03	.00	.00	.29
2	.04	.13(.03)	.00	.00	.17
3	.03	.00	.08(.03)	.03	.14
4	.05	.00	.11	.24(.11)	.40
pA	.38	.16	.19	.27	1.00

* Parentheses indicate the proportion of agreement
that could be expected by chance

$$\text{Agreement} = .26 + .13 + .08 + .24 = .71$$

Table 3
Matrix of Agreement for the Videotape
Viewing Session Data
(by Proportion)

Category	1	Judge A 2	3	4	5	pB
Judge B 1	.19(.07)*	.02	.02	.00	.04	.27
2	.00	.11(.03)	.02	.00	.04	.17
3	.00	.00	.11(.02)	.00	.02	.13
4	.00	.00	.00	.21(.04)	.00	.21
5	.07	.02	.00	.00	.13	.22
pA	.26	.15	.15	.21	.23	1.00

* Proportion of agreement that could be expected to chance

$$\text{Agreement} = .19 + .11 + .11 + .21 + .13 = .75$$

The results reported in Table 3 represent the second sort of the CS2 data. The first sort yielded an unacceptably low level of agreement (.56) so the judges were asked to repeat the procedure approximately one week after the first sort. The same judges were used and they were given the same instructions except that the researcher provided an oral definition of each category along with the written definitions the judges had received for the first sort.

Having achieved a higher level of agreement for the two coding schemes, all that remained was to test the reliability of coders using the categories. In coding the videotapes, two coders analyzed the bargaining interaction using the first coding scheme (CS1) and two different coders used the second coding scheme (CS2). They recorded the number of behaviors exhibited by each subject in each category using the coding sheets provided by the researcher (see Appendix 4). Tables 4 and 5 report the ratio of agreement to disagreement per cell and the percent of agreement per category. The ratios reported in the following tables indicate the number of behaviors both raters recorded in each cell as opposed to the number of behaviors one rater recorded that the other did not. For example, if Rater A recorded five behaviors in a given cell but Rater B only recorded three, then they agreed that there were three behaviors but disagreed regarding the other two behaviors recorded by Rater A. Thus the table would report 3:2 for that cell. The agreement figures were computed by dividing the total number of coded behaviors into the number of agreed upon behaviors. A .70 level of coder agreement was considered minimally acceptable for the purposes of this study.

Table 4
Interrater Reliability for CS1

Subjects	U1	U2	U3	C1	C2	C3	Agreement
I. Amount of Info	8:1	4:0	6:4	5:1	4:4	12:0	.80
II. Specificity of Info	3:4	5:7	3:1	1:1	5:0	5:2	.61
III. Restrict the Other	1:3	4:12	2:7	1:4	7:0	4:3	.40
IV. Throw off Balance	4:2	5:1	1:8	3:1	8:4	3:6	.56

Table 5
Interrater Reliability for CS2

Subjects	U1	U2	U3	C1	C2	C3	Agreement
I. Logic & Reason	5:3	12:7	9:3	2:5	5:6	9:5	.59
II. Dead Ends	0:0	1:1	0:2	0:2	1:4	2:3	.25
III. Give & Take	2:6	7:4	8:2	0:5	4:3	5:3	.53
IV. Power Cues	26:4	26:0	25:15	6:8	30:5	16:4	.78
V. Pressure Tactics	2:0	3:1	7:1	2:0	2:2	5:0	.84

Clearly, Category I (CS1) yielded an acceptable level of coder agreement while the other categories did not. For CS2, Categories IV and V yielded acceptable levels of agreement while the others did not. The training of the coders for CS1 consisted of an oral description and definition of each category and reading all the cards in each category. The coder training for CS2 was originally identical to the CS1 coder training. However, the first coding of

the tapes did not yield acceptable agreement levels for any categories. Two new coders were recruited and were provided with a written description of each category, including a complete list of the items that had been sorted into the categories. In addition, they coded a ten minute segment of videotape as a practice and discussed discrepancies in their ratings before coding the entire tapes. This additional training had mixed results. The agreement for Categories I, IV, and V increased from .56, .47, and .35 to .59, .78, and .84, respectively. However, the agreement for categories II and III decreased from .48 and .57 to .25 and .53, respectively.

It is almost certain that the relative lack of reliable coding using CS1 was due to the fact that the coders had no practice in the use of the coding scheme. The categories are so general in their present form that some form of clarification is a must. To some extent coder bias may have also played a part in undermining the reliability of CS1. Coder 2 coded forty more behaviors for the Union team than Coder 1 and he coded sixty more behaviors overall, contributing strongly to the overall disagreement between coders. Finally, some of the discrepancies in coding may be attributable to coder disinterest. Although the coders were allowed a fifteen minute break between the two, fifty minute videotapes, they engaged in conversations about topics unrelated to the task during the coding of the second videotape (showing the Union team). These drawbacks might be overcome by: 1) more extensive training of coders, including practice runs and 2) separating the coders, by using partitions, during the coding sessions.

The recording of the tapes using CS2 produced some interesting but enigmatic results. Categories IV and V, which had had the lowest reliabilities (.47 and .35 respectively) had the highest reliabilities after the recording (.78 and .84* respectively). During the practice session and subsequent discussion the second set of coders focused their comments on those two categories almost exclusively so it is not surprising that the reliability was enhanced. For categories I (Logic and Reasoning) and III (Give and Take) the reliability remained virtually the same. It may have been difficult to distinguish between these two categories since exchanging concessions seems like a logical thing to do. In any case, these categories are fairly general and need further clarification. The ten minute training session was probably insufficient to clarify the fine distinctions that needed to be made. Finally, the reliability of Category II (Dead Ends) dropped dramatically (from .48 to .25). One reason for this may have been that this category contained the fewest coded behaviors. As a result, even a relatively small discrepancy between coders had a large detrimental effect on the reliability. Secondly, the description of this category called for coding behaviors that communicated inflexibility. At the same time, one of the areas of Category III (Pressure Tactics) called for coding behaviors that rejected the other team's offers. Consequently, a statement such as, "We will not accept that!" could fall into both categories. It would appear then that greater reliability could be achieved for CS2 by: 1) extending the training and practice sessions, 2) clarifying the definitions of each category, and/or 3) expanding

the coding scheme by breaking some categories down into more specific categories.

Research Questions

The first research question calls for a qualitative comparison of the subjects' primary orientations toward power in connection with the behaviors they see as powerful and the behaviors they exhibit when bargaining. The power orientation scale measures six different orientations toward power: power as good, power as an instinctive drive, power as charisma, power as resource dependency, political power, and power as control and autonomy. Complete scores for each subject on each dimension can be found in Table 13 (Appendix 1). Since each orientation is determined by a different number of items on the POS, it was necessary to collapse the scores by dividing the subjects' total scores for each orientation by the number of items on the POS that contribute to that score. Table 6 shows the average total scores for each subject on each power orientation. Subjects' overall score for each orientation was computed by summing their pre- and post-test averages.

Table 6 clearly illustrates that two members of the Union team see power as primarily political while one member primarily sees power as good. In addition, all members of the Company team see power as good. Table 7, then, compares each subject's PPO with the number of tactics they suggested in each category of CS1. Similarly, Table 8 compares each subject's PPO with the number of tactics they identified in each category of CS2.

Table 6
Subjects' Average Total Scores on the POS

Orientation	U1	U2	U3	C1	C2	C3
Good	2.4	5.6	3.8*	3.2*	4.4*	4.4*
Instinctive Drive	.33	- .33	2.67	2.0	3.0	3.0
Charisma	1.5	3.5	3.0	-2.5	0.0	0.0
Dependency	3.75	4.5	-3.5	1.5	.25	2.5
Political	4.0*	6.0*	2.0	0.0	- .5	2.0
Control Autonomy	2.75	2.75	-5.75	1.75	-2.0	3.5

*Subjects' primary orientation toward power (PPO)

Table 7
Subjects' Power Orientation v. Suggested Tactics (CS1)

Subject PPO		U1 POL	U2 POL	U3 GOOD	Union Total	C1 GOOD	C2 GOOD	C3 GOOD	Company Total
CS1 Category *	I.	1	0	0	1	2	6	3	11
	II.	0	2	1	3	1	0	2	3
	III.	1	1	2	4	0	1	0	1
	IV.	2	1	3	6	1	2	1	4

- *
 I. Increase Amount of Information
 II. Increase Specificity of Information
 III. Restrict the Other Team
 IV. Throw off the Balance

Table 8
Subjects' Power Orientation v. Identified Tactics (CS2)

Subject PPO		U1 POL	U2 POL	U3 GOOD	Union Total	C1 GOOD	C2* GOOD	C3* GOOD	Company Total
CS2 Category *	I.	2	3	4	9	0	0	0	0
	II.	0	2	4	6	0	0	0	0
	III.	1	3	1	5	0	0	0	0
	IV.	0	4	0	4	0	5	0	5
	V.	3	5	0	8	0	2	0	2

* C1 and C3 did not attend the videotape viewing session during which data for this coding scheme was generated.

- I. Logic & Reason
- II. Dead Ends
- III. Give & Take
- IV. Power Cues
- V. Pressure Tactics

Differences in the number of suggestions in each category do not appear to be significant from one subject to another. There does, however, seem to be a tendency for the two teams to suggest different categories of behavior. Table 7 shows that the Company team leaned heavily toward Category I (CS1) as a power tactic, mostly due to the suggestions of C2. The Union team suggested four times more behaviors in Category III than the Company. The most suggestions made by the Union team fell into Category IV but the Company team had almost as many tactics suggested in that category. The comparison among and between subjects with the same primary power orientation does not reveal any clear pattern but the two teams do show different

tendencies, at least in Categories I and III. Specifically, the Company suggested increasing information as a way of gaining power while the Union suggested imposing restrictions on the other team as a way of gaining power. There is a clear logic to this in that, if the Company gains power by increasing information, the Union can exert power by restricting them in that area.

Table 8 shows a variety of identified behaviors spread somewhat evenly across categories. For example, U1, identified behaviors belonging to Categories I, III, and V. The input offered by U2 was evenly distributed with a slight emphasis on Categories IV and V. Thus, both subjects with political power as their primary orientation made more suggestions in Category V (Pressure Tactics) than any other. On the other hand, the two subjects with 'good' as their primary orientation show opposite patterns. Behaviors in Categories I, II, and III were identified by U3 with none in Categories IV and V. Consequently, C2 identified several behaviors in Categories IV and V with none in I, II, or III. Either there is no connection between power orientation and identified power tactics or what is good to a Union bargainer is not so to the Company bargainers and vice versa.

The second part of the first research question calls for a comparison of the subjects' power orientation with the bargaining behaviors they exhibited (as coded by the observers). This comparison was made based on the number of coded behaviors agreed upon by the coders since the coding reliability was so inconsistent. Table 9 shows, for each subject, the number of behaviors coded into each category of CS1. Table 10 shows the number of behaviors coded for each subject in each category of CS2.

Table 9
Power Orientation v. Observed Behavior (CS1)

Subject PPO		U1 POL	U2 POL	U3 GOOD	Union Total	C1 GOOD	C2 GOOD	C3 GOOD	Company Total
CS1 Category*	I.	8	4	6	18	5	4	12	21
	II.	3	5	3	11	1	5	5	11
	III.	1	4	2	7	1	7	4	12
	IV.	4	5	1	10	3	8	3	14

*

- I. Increase Amount of Information
- II. Increase Specificity of Information
- III. Restrict the Other Team
- IV. Throw off the Balance

Table 9 shows a relatively equal but dissimilar distribution of behaviors in each category for each subject. The two politically oriented subjects show highly dissimilar distributions of scores with U2's scores evenly spread across categories while U1 seems to rely quite a bit on Category I and very little on Category III. Three subjects in the 'power as good' group show a distinct tendency to choose Category I over the others but again, so does U1, whose PPO is political power. A comparison of the team totals shows that both teams exhibit more behaviors in Category I but distribute their other behaviors differently among the remaining categories.

Table 10
Power Orientation v. Observed Behavior (CS2)

Subject PPO		U1 POL	U2 POL	U3 GOOD	Union Total	C1 GOOD	C2 GOOD	C3 GOOD	Company Total
CS2 Category *	I.	5	12	9	26	2	5	9	16
	II.	0	1	0	1	0	1	2	3
	III.	2	7	8	17	0	4	5	9
	IV.	26	26	25	77	6	30	16	52
	V.	2	3	7	12	2	2	5	9

- *
 I. Love & Reason
 II. Dead Ends
 III. Give & Take
 IV. Power Cues
 V. Pressure Tactics

Table 10, unlike Table 9, shows a very consistent distribution of coded behaviors across subjects. The observers coded substantially more behaviors in Category III (Nonverbal Power Cues) for all subjects. The next most preferred category, for all subjects, Category I. Category III shows the third highest frequency of coded behaviors for everyone except C1. Categories V and II consistently showed frequencies for the subjects. This result could indicate a highly predictable pattern of tactical preference on the part of the subjects (no matter what their orientation).

The second research question calls for a comparison of the subjects' POS scores before and after the bargaining simulation. Table 11 below reports the results of three SPSS correlated t-tests run on the data. These tests compared the POS pre-and post-test

results for the Union team, the Company team, and all subjects for each of the six orientations measured by the POS. Raw score means were used since all comparisons were made within orientations. This table shows no significant change in the subjects' power orientation scores, undoubtedly because the sample size was too small.

Table 11
Comparison of the Pre- and Post-Test
Means on the POS

Orientation*	GOD	IND	CHM	RED	POL	COA	
Un Pre	9.67	1.33	3.67	2.67	4.0	.33	n = 3
Un Post	10.0	1.33	1.67	3.67	4.0	-.67	
t value	-.38	0.0	3.46	-.48	0.0	.87	ns
Co Pre	10.33	2.33	-1.33	3.33	0.0	2.33	n = 3
Co Post	9.67	5.67	-.33	2.33	1.0	2.00	
t value	.38	-1.64	-.65	.65	-.65	.18	ns
Total pre	10.0	1.83	1.16	3.0	2.0	1.3	n = 6
Total post	9.83	3.5	.67	3.0	2.5	.67	
t value	.18	-.96	.50	0.0	-.70	.67	ns

* GOD = Good; IND = Instinctive Drive; CHM = Charisma;
RED = Resource Dependency; POL = Political; COA = Control
Autonomy

The third research question requires a qualitative comparison of three outcome measures of the bargaining interaction. The three types of data gathered from the subjects and observers were converted to percentages to provide a common unit for comparison. Table 12 shows the percent of the total outcome attributed to the two teams according to: 1) the predetermined point values assigned to each

issue by the teams prior to the bargaining session, 2) the pie charts filled out by each subject during the post-simulation interview session (see Appendix 2), and 3) the total number of powerful behaviors coded by each observer for each team.

Table 12 illustrates three important and interesting findings. First, all of the subjects indicated that their own team came out ahead in the bargaining. Consequently everyone, at least in their own minds, won. Second, the teams overestimated their percentage of the outcome by roughly the same amount. That is, the Company team members claimed for themselves 55 percent of the outcome--10 percent more than the pre-simulation scoring sheet indicates. Similarly, the Union team claimed 66.8 percent of the outcome for themselves, or 11.8 percent more than is indicated on the scoring sheet. Both teams, then, overestimated their portion of the outcome by approximately the same amount. Finally, the coders showed an uncanny agreement with the pre-simulation scoring percentages. Individually, the coders (with the exception of Coder 1) distributed the number of observed power tactics in proportions very similar to the scoring sheet percentages. Even more surprising though is the fact that by averaging the coders' percentages, the Union comes out ahead 53.5 percent to 46.5 percent--a mere 1.5 percent discrepancy from the scores that were predetermined by the teams prior to the bargaining session.

Table 12
Comparison of Three Different Outcome
Measures of Bargaining

	Union Score (%)	Company Score (%)
1. Simulation Scoring Sheet	55	45
2. Post-Simulation Pie Charts		
Company 1	41	59
Company 2	47	53
Company 3	47	53
Union 1	72	28
Union 2	66	34
Union 3	62.5	37.5
3. Observer Coding		
Coder 1 (CS1)	46	54
Coder 2 (CS1)	53	47
Coder 3 (CS2)	60	40
Coder 4 (CS2)	55	45

CHAPTER 5

DISCUSSION AND IMPLICATIONS

The results of this study have some important implications for the accepted notions about social power. This chapter will tie the results of the study with the theoretical issues raised in Chapter 2. Second, the methodological issues and limitations of the study will be outlined. Finally, some suggestions for future research on power will be offered.

Theoretical Implications

The generation and use of participant generated coding schemes in this study proved quite useful in examining the extent to which real bargainers understand and use power. A close examination of the coding schemes and the items which made up each category (see Appendix 4) proved highly instructive in determining which theories of power were represented by the subjects' comments and which were not.

The first two categories of CSI (I. Increase the Amount of Information and II. Increase the Specificity of Information) contain suggestions from the subjects that represent several different theories. Most strongly represented is French and Raven's field theory (1959). Subjects' suggestions include references to reward power (e.g., "indicate willingness to compromise"), expert power (e.g., "show experience in bargaining"), and referent power

(e.g., "refer to personal relationships with members of the other team"). One problem here is that indicating a willingness to compromise is not a powerful move from the perspective of level of aspiration theory (Siegel & Fouraker, 1969). Level of aspiration theory suggests that power stems from making small, infrequent concessions and making them only after gaining concessions from the other party. Of course, a person could say that he or she was willing to compromise and still make only small and infrequent concessions.

Two theoretical orientations are incongruously represented by the suggestion in these two categories. The first problem arises from the suggestion that getting the other team to talk and keeping them talking are powerful tactics. One way of doing this is asking questions that demand an answer. This is recognized as a power related behavior by some relational perspective theorists (Bales, 1950 and Rogers & Farace, 1975). On the other hand, some proponents of the relational perspective see talk time as an index of power (Golembiewski, 1962; Rogers & Farace, 1975; and Wilmot, et al., 1981). Clearly if talk time is power, then trying to get one's opponent to talk is tantamount to giving away power.

The second problematic issue concerns the notion of information power (Raven, 1965). This notion assumes that knowing and expressing information that is unknown to another gives one power. This is represented in part, within both categories (e.g., "show an understanding of information about the industry," "give strong arguments," and "be clear about one's purpose"). However, other suggestions focus on getting the other team to express information (e.g., "ask others to be specific," and "ask, 'what did

you mean?"). Thus, the subjects see both giving and asking for information as forms of power. This might be explained by the following example: if A gets B to do most of the talking then A can keep his or her information to him or herself, thus ensuring that A will have information unknown to B. Also, B's information will become known to A thus reducing B's power. This fits with the subjects' perception that keeping the other team talking will provide more information about their position and they might possible "talk themselves into a corner."

Category III (Restrict the Other Team) is not clearly represented in the theoretical literature. Only three suggestions were sorted into this category ("do the writing oneself," "hold out for as long as possible," and "insist on a living wage") but 18 percent of the coded behaviors fell into this category. Writing the contract language oneself could be considered a suggestion (Bales, 1950) or an offer (Donohue, 1978) but neither quite fits. Essentially, these behaviors limit the number of options for the other team in that, if A writes the language for a particular clause, B is essentially limited to discussing the proposal A suggests. Similarly, if B holds out by not discussing an issue then A cannot make any progress unless she or he wants to continue to make incremental concessions. The notion of limiting options most closely reflects the mathematical/probabilities model where each choice by one party limits the options of the other. Watzlawick (1965) equates limiting others' options with establishing rules in a relationship. Similarly, Frost and Wilmot (1978) see rule-setting as a way of gaining power in

a relationship. Clearly, restricting options deserves more attention in power theory and research.

Throwing the Process of Balance (CS1, Category IV) contains three different types of behavior found in the extant literature and one type not easily classified. The first type is threats, which are commonly associated with bargaining. Suggestions of this type include, "threaten to strike," "threaten to close the plant," and "threaten to file an unfair labor practice suit." Threats are recognized as power moves by social exchange theorists (Thibaut & Kelley, 1959; Homans, 1974; and Bacharach & Lawler, 1980), field theorists (French & Raven, 1959), relational perspective researchers (Donohue, 1978), and mathematical/probabilities theorists (Deutsch & Krauss, 1962 and Tedeschi, 1969). The second behavior type represented in this category is disconfirmation (e.g., "doodling," "calling off the bargaining session," and "stomping out of the room"). Disconfirmation is identified as a power move in the literature only by the conversational control researchers, Rogers and Farace (1975). The third type of behavior in this category is missing from most studies of power and control. Nonverbal behavior was recognized and suggested by the subjects as playing a role in exercising power at the bargaining table (e.g., "doodling," "beating on the table," "blow smoke at the other team," and "stomp out of the room"). Folger and Sillars (1977) insist that nonverbal cues play an important role in influencing people's perceptions of power and yet few studies have attempted to systematically code and analyze this type of behavior in relation to power. The two remaining suggestions in this category are "do the unexpected--go against your patterns or your

reputation" and "scream and yell while another team member conciliates." These behaviors might be called mixed messages in that they are designed to defy the other team's expectations. They would probably be very hard to code because bargainer's expectations are rarely known. All the behaviors in this category serve to confound and confuse the other team.

Like the first category of CS1, Category I of CS2 focuses on information but in a slightly different vein. The behaviors subjects identified in this category (Logic and Reasoning) were related to giving and requesting information (e.g., "cite statistics" and "I would like to hear more about (X)"). More common, however, were behaviors focusing on denying or questioning the logic of the other team (e.g., "extend their arguments so they appear unrealistic" or "ask, 'is it in your best interest to allow that?'"). Denials and questions have been used in previous research (Bales, 1950; Rogers & Farace, 1975; and Donohue, 1978) as indices of power but the questions in this category are quite specific in that they appear to function as denials or counterarguments. Perhaps this category could be split to separate giving one's own logic and information from denying or calling into question the other's logic and information.

Category II (Dead Ends) contains behaviors that serve to set the limits of the discussion. These limits are set by qualified threats (e.g., "the alternative might be the complete close down of the plant") and by absolute language and metaphors (e.g., "we absolutely could not accept that," "we will have no more movement on the contract whatsoever," and "we are at the end of our rope"). Threats, as has been mentioned several times already, are widely

discussed in the literature but the use of language and metaphor to indicate end points and limits is not discussed in any detail by power or bargaining theorists. This would appear to be a particularly fruitful area of study if we are to understand how limits are set in bargaining interactions.

Give and Take (Category III) strongly reflects the principles of social exchange theory, equity theory, and field theory. All of the identified behaviors in this category relate to rewards and costs, particularly in terms of balancing the two. Rewarding includes making a better offer (e.g., "we will double our wage offer"), accepting an offer with reservations (e.g. "we do not like it but we will live with it"), or referring to rewards already given (e.g., "we have given you (X) on (Y) issue"). Equity theory (Spector, 1977) is represented by behaviors which serve to balance costs and rewards (e.g., "we are close to agreement but still far apart on (X)" and "You will get what you want if you go along with (X)").

Category IV (Power Cues) is the most easily distinguishable in that all the behaviors identified and sorted into this category are nonverbal. This study is one of the first attempts to identify, categorize, and code the impact of nonverbal cues on perceptions of power. Although all the nonverbal cues were put into this one category, there seem to be three different types of behavior represented. First, the subjects identified behaviors that show disinterest or disconfirmation (e.g., "avoid eye contact," "put your pen away," and "look at your watch"). Secondly, there are behaviors that provide emphasis (e.g., "raising or lowering one's voice," and "rapping the table"). Finally, there are direct responses, both

positive (e.g., "taking notes") and negative (e.g., "shaking one's head"). Interrupting was also identified as a power move, supporting the work of various relational perspective researchers (Mischler & Waxler, 1968; Turk & Bell, 1972; Hadley & Jacob, 1973; Rogers & Farace, 1975; and Donohue, 1978). Folger and Sillars (1977) suggested that nonverbal cues play an important role in establishing and exercising power and this study bears out that argument in that 58 percent of the coded behaviors fell into this category. Clearly, there is a need for further research to define the different types of nonverbal power cues and to measure their impact on perceptions of relative power.

The last category of CS2, Pressure Tactics, is the most diverse and difficult to define. It includes references to time limits as well as veiled threats (e.g., "you are getting paid more than people on unemployment"). The most frequently identified behavior in this category however, is the rejection of an offer through the use of insults or emotional language (e.g., "I am offended by that offer," "that is an embarrassing proposal," "we would be laughed out of the unionhall," etc.). The particular use of language here indicates that a proposal is not worthy of consideration and that the other team will have to make another, more acceptable proposal if any progress is to be made. It is not just a rejection, it is virtually a demand that the other team make a new proposal in order to save face. The use of emotional language and labels is what makes this category of behaviors stand out from the rest. Perhaps emotional language deserves a category by itself, separate from threats and time pressures.

The behaviors suggested, identified, and used by the subjects in this study represent, in part, each of the theories reviewed in Chapters 1 and 2. It can be concluded, then, that people do see power in terms of information, expertise, rewards and costs, threats, interruptions, questions, disconfirmations, and limited options. If power theory is to fully account for how naive participants view and exercise power, however, several additional considerations must be explored.

First, a system must be developed for classifying nonverbal behavior and measuring its influence on perceptions of power. This study showed that nonverbal cues can be used to show disinterest, to distract, to disconfirm, to emphasize, and to respond. With 58 percent of the coded behaviors falling into the nonverbal cues category, it is clear that the coders see nonverbal cues as playing an important role in enhancing or communicating power related messages. The subjects too, when asked to look at the nonverbal cues, readily and frequently identified behaviors on the videotapes that they saw as power attempts. It would seem that this area is particularly important to future research on power.

Second, the impact of language on perceptions of power should be accounted for. Absolute and emotional language both appear to play a significant role in the exercise of power at the bargaining table, at least in the eyes of the bargainers. Third, threats were sorted into different categories, largely due to differences in the language used. There seem to be three different types of threats, 1) direct (e.g., "there is a very real probability of a strike"), 2) conditional (e.g., "our alternative to this offer would be a

close down of the plant"), and 3) veiled (e.g., "you are making more now than if you were on unemployment"). These different types of threats seem to represent different types of pressure just as absolute language seems to generate more pressure than emotional language. Some method must be developed for identifying the degree of power represented by these different uses of language.

Furthermore, the use of logic must be accounted for.. Clearly, giving information can enhance power as Raven (1965) suggests but that information or logic may not go unquestioned or unchallenged. Information seems to be related to power in a number of different ways. Power can be enhanced by having information and keeping it to oneself, sharing important information at the proper time, gathering information from one's opponents, denying the importance of the opponent's information, and showing the opponent's information to be inaccurate. Conversely, information can be detrimental to one's power if it is shared too freely, shared at the wrong time, or inaccurate. In any case, a clear understanding of the dynamics of power in bargaining interactions requires some method of following the flow of information, arguments, and counterarguments.

Finally, some account must be taken of rule-making and rule-breaking behavior. Categories such as Dead Ends, Restricting the Other, and Throwing off the Balance seem to play an important role in either focusing or changing the pattern of interaction between the parties. Rule-breaking can help equalize one party's power when the rule structure supports a power imbalance just as rule-making behavior can enhance one's power by setting up an equal power structure. If Watzlawick (1976) is right in proposing that each

behavior in a relationship serves to create, reinforce, or modify the rules in that relationship, then more attention must be given to this area especially in bargaining research.

In general, the two coding schemes were not qualitatively different although they were generated from two different sets of data. This would indicate that the subjects have fairly consistent definitions of power. The one major exception to this rule is the prominence of the nonverbal cue category in CS2. It is only natural that the subjects would be able to identify more nonverbal behaviors while watching a videotape than they could just relying on their memories. That is, it is much harder to remember someone's nonverbal cues than it is to note them as they appear on a videotape.

With the exception of the nonverbal power cues category, the two coding schemes are very much alike. Both focus on information giving and receiving. In fact, taking just the verbal behavior categories into account, the information, logic, and argument oriented suggestions for CS1 accounted for 54 percent of the suggestions as compared to 46.6 percent information oriented suggestions for CS2. As for the coded behaviors, 58.6 percent of the coded behaviors were in the information related categories of CS1 while 62.3 percent of the total number of coded behaviors were placed in the information related categories of CS2. So there is a strong tendency for power to be defined as a function of the way that information is exchanged in a bargaining interaction.

The remaining verbal categories for the two coding schemes revolve around restricting the other, being inflexible, pressuring, and rejecting offers. With as little difference as there is between

the coding schemes it might be possible to combine and refine them for use in future research since subjects appear to define power related behavior consistently whether it be immediately after a bargaining task or later, while watching videotapes.

Bargainers apparently see power as hinging on the strategic flow of information. They seem to take their cues as to the limits of each others' positions from sometimes subtle linguistic cues. When those limits are being tested they are likely to resort to some form of threat as a warning. Teams may ignore these warnings and send disconfirming messages. They may also resort to establishing or breaking rules or expectations in order to capitalize on or alter a perceived power imbalance.

The results of this study showed no significant change in the subjects' orientations toward power according to the POS. There is some question, however, as to the usefulness of knowing a given individual's orientation. Although two subjects had a different primary orientation than the others, neither the behaviors they saw as powerful nor the behaviors they exhibited in the bargaining were significantly different than those identified and exhibited by the other members of the bargaining teams. In fact, an examination of the distribution of coded behaviors (using CS2) indicated that all of the bargainers exhibited virtually the same pattern of behavior in this simulation. Bargainers apparently do differ in primary orientations toward power but that has little to do with their definition or use of power related behaviors.

The final theoretical issue explored in this study concerned the relationship between self-reports, outcome measures, and observer

coding of a bargaining interaction. The use of multiple measures of power has a long history in the literature (Lippitt, et al., 1952; Mischler & Waxler, 1968; Turk & Bell, 1972; Hadley & Jacob, 1973; Turk, 1974; Klopper, et al., 1978; and Donohue, 1978). For the most part, these studies have failed to find correlations between the different measures. Those that have found correlations used intact groups, analogic self-report measures, and theory-based coding schemes.

This study was successful in correlating observer coding with a participant-generated outcome measure. It is not surprising that the subjects' self-reports did not correlate with the other measures since both teams saw themselves as coming out ahead in the bargaining. Obviously, the teams had different priorities which allowed them to see themselves as "winners." However, these priorities were already reflected in the objective outcome measure since the point value of each outcome for each team was assigned by the team itself.

It seems odd that an outcome measure based on the teams' own priorities would correlate highly with observers' coding but not with the post-bargaining perceptions of the subjects who set the priorities in the first place. However, Illich (1980) defines bargaining power as the ability to get others to do what you want by convincing them that it is in their own best interest. Perhaps both teams arrived at desirable outcomes because they were convinced that those outcomes were in their own best interest. The change in priorities brought about by the teams' exercise of bargaining power could cause the low correlations between the predetermined scores on each issue and the

subjects' post-bargaining perceptions. That is, outcomes that appeared undesirable prior to bargaining appeared more desirable after the negotiations were finished because of successful power attempts by the opposing team(s). In addition, the subjects' comments about power following the negotiation might focus on the tactics the other team used that brought about a change in priorities. If this was the case, it would explain why the coding scheme(s) generated from the subjects' post-simulation comments would more accurately reflect the relative power of the parties than the subjects' own view of who "won."

In summary, subjects see power similarly to the definitions suggested by social exchange theory, field theory, psychological theories, the relational perspective, and the mathematical probabilities model. However, these theories do not adequately explain all the behaviors the subjects saw as power tactics. Further explanations of the function of nonverbal cues, threats, absolute and emotional language, and rules are necessary to provide a comprehensive view of how people see and use power. Further, it is clear that different individuals have different orientations toward power but the effect of this orientation on one's definition of power and one's use and choice of power tactics is unclear. Finally, subjects were unable to match their view of the bargaining outcome with a predetermined scoring system derived from the subjects' own perceptions of their bargaining priorities. On the other hand, observers using a coding scheme derived from the subjects' post-bargaining perceptions were able to approximate the objective outcome measure through the use of behavioral coding.

Methodological Issues

Three innovative research techniques were used in this study in an attempt to enhance the validity of the coding schemes and the outcome measure, and to increase the correlations between the outcome measure, the coding results, and the subjects' self-reports. These techniques were: 1) generating the coding schemes from the subjects' perceptions of power, 2) using an outcome measure based on the subjects' pre-bargaining priorities, and 3) using an analog measure of subjects' perceptions of the relative power relationship between the two teams. Each of these techniques will be discussed here along with the limitations of the study.

Theoretical definitions of power differ to such an extent that no single theory can be said to adequately conceptualize power. Nevertheless, researchers continue to code interactions and draw conclusions about power using coding schemes generated from purely theoretical notions (Bales, 1950; Rogers & Farace, 1975; and Donohue, 1978). The validity of theory based coding categories is questionable at best. This study generated two coding schemes, both entirely from the subjects' own definitions and perceptions of power. The purpose of this procedure was to generate categories with built in validity. Two coding schemes were generated because two sets of data were used. The two schemes were kept separate so that any differences in categories or in the outcome of the coding could be accounted for. It was, of course, possible for the subjects to give qualitatively different responses immediately following the bargaining simulation than they did during the videotape viewing session. Keeping the two

coding schemes separate controlled for that. As discussed earlier in this chapter, the differences were minimal.

The problem with the coding schemes in their present form is the lack of specificity. The categories are too general. Since the categories reflect many of the theoretical approaches to power while at the same time including new information not addressed in traditional power theories, this procedure seems highly desirable. As suggested earlier, the categories from the two coding schemes could be combined and then broken down more specifically. With some revision and redefinition a higher degree of sorting agreement could be achieved. The close agreement between the coding outcome and the objective outcome measure is promising. This method of generating coding categories for analyzing power should certainly be pursued. One additional improvement on this procedure would be to use a larger subject population to draw the raw data from. This would ensure a greater variety of responses and a more valid and generalizable end product.

As with traditional coding schemes, most outcome measures used in bargaining studies are theoretically derived. It is often assumed that when negotiating a monetary issue, the midpoint between the two parties' positions is the equitable, equally desirable outcome. This approach totally ignores Walton and McKersie's notion of subjective expected utilities (1965). Bargainers, particularly when they are dealing with more than one issue, rarely have the same outcome value for any given settlement point. Consequently, it is a mistake to assume that anyone other than the parties themselves can accurately assign outcome values to any given outcome. For this

reason, the subjects in this study were asked to assign their own values to the possible settlement points on each of the four issues (see Simulation Scoring Sheet--Appendix 3).

The problem with this procedure was that by assigning a limited number of possible settlement points to each issue, the bargainers' flexibility was unnecessarily limited. As proof, one of the teams added a settlement point and assigned a value to it because they did not like any of the possible settlements available. This made the scoring for that issue very difficult because they had an extra item while the other team did not. Even though the actual settlement did not include that item, the team had assigned points to it that otherwise could have added to their score elsewhere. If this procedure is to be used in the future, the teams should be allowed to generate their own list of options prior to the bargaining session. Then by combining both lists and having the teams assign values to the options, the two teams will at least have a common list of the possibilities. That way the final outcome scores would be more comparable.

The final innovation in this study was the use of "pie charts" to measure the subjects' view of who came out ahead in the bargaining. Berger (1980) suggests that most failures to correlate subject self-reports of overall power with other outcome measures are due to the fact that power is a relational concept. As such it is difficult to measure by simply asking subjects who the most powerful party was. Bochner (1978) suggests that power is an analogical concept and should be measured using analogical data.

In an attempt to apply these notions, subjects were asked to divide "pies" for each issue to visually represent which team got most of what they wanted in the bargaining. It was hoped that this method would produce more specific and more accurate information about how the subjects viewed the relative power of the parties than merely asking, "who was the most powerful?" As previously mentioned, all the subjects indicated that their own team won. This did nothing to promote the correlation between self-reports and the objective outcome measure but it was an interesting finding in its own right. However interesting the results might be, there is no evidence that the use of the "pie charts" is any more or less valid or reliable than any other gross outcome measure.

This study suffered from three major limitations. First, was the excessively small subject population. The availability of professional bargainers in the Missoula, Montana area was prohibitive in this respect. Perhaps a larger metropolitan area would have a larger population from which to recruit subjects. The researcher is still firmly convinced that using experienced bargainers is preferable to using subjects with no bargaining experience. The second weakness was the failure to use intact groups. Once again, it was impossible to recruit intact bargaining teams. The best results in finding correlations between various measures of power have occurred in studies utilizing intact, ongoing groups (Klopper, et al., 1978). Finally, the sorting and coding procedures used to generate and apply the coding schemes need to be refined. The low reliability figures for most of the categories severely limit the utility of these findings. Time limitations prevented the researcher

from retraining the coders and recoding the data to achieve high coder reliability. The results of the second coding using CS2 are promising enough, however, to indicate that more extensive training could have produced an acceptable level of coder agreement. Further suggestions for the revision and future use of the coding schemes have already been offered. Overall, the results of this study are quite promising and suggestive of the following directions for future research.

Future Research

Subsequent research would do well to follow up on the procedures used here to generate participant-based coding schemes. Researchers using larger subject populations could collect a large pool of power tactics that could then be sorted and checked until an acceptable level of agreement was achieved. Coders should be trained using several fifteen minute trial sessions until acceptable coder reliability is achieved. Having arrived at a reliable set of discrete categories the results of the coding could be compared to the coding results of theory-based coding schemes to determine which type of coding correlates best with participant self-reports and objective outcome measures.

Research leading to the generation of a valid and reliable coding system for measuring power is best carried out in the laboratory. However, when reliability and validity have been tested and achieved researchers can begin to videotape and analyze actual negotiation sessions to further test the generalizability of the findings. Outcome measures for comparisons should definitely take

into account the subjects' own priorities. Subjects could be asked to assign values to the possible settlement points both before and after the bargaining session.

If a larger subject population were used a wider variety of power orientations might be represented. This would allow the researcher to statistically test subjects' change in orientation and differences in their choices of tactics with a greater chance of achieving meaningful results.

The effect of language on perceptions of bargaining power could be tested. Teams could be trained in the use of various types of threats or varying degrees of absolute and/or emotional language. Subjects could then be assigned to different bargaining sessions where one team's language or use of threats is manipulated so that the effect on the other team's perception of power can be measured.

The effect of nonverbal cues on perceptions of power could be examined through the use of videotapes. Observers could watch and code videotapes with varying types and amounts of nonverbal cues to determine the effects on coded power behavior. One especially useful method might be for subjects to comment on their own tapes after viewing them without sound.

Finally, some determination should be made to discover whether or not certain categories of behavior have more force than others. Donohue (1968) attempted to measure power by assigning different weights to different categories but his weighting system was largely arbitrary. It stands to reason that a single behavior of one type could have more impact than a single behavior of another type. Consequently, it is important to develop some method of

measuring the intensity of power related behaviors for the purposes of coding more accurately.

CHAPTER 6

SUMMARY

Power is an integral aspect of all human relationships (Rozinski, 1965). It is considered, by some, to be the most crucial variable in managing conflict (Duke, 1976). Despite the widespread concern about power dynamics, or perhaps because of it, there is still no comprehensive conceptualization or definition of power.

As our population grows and becomes more mobile it becomes increasingly important that we learn to deal with our differences--our conflicts--more effectively. Part of that is gaining a clearer understanding of power relationships and how we can exercise, share, and equalize power.

This study attempted to resolve several problematic conceptual issues raised by Duke (1976) as a first step to defining and measuring power. Secondly, six major theories of social interaction were reviewed to determine the commonalities and discrepancies in their approaches to power. This review of the literature yielded a definition of power as a relative concept. That is, power is exercised by all parties in a relationship and so its dynamics are specific to a given situation. In addition, it can be either shared or exercised primarily by just one party and it is seen as both an available resource and as a possession of those exercising it.

Because of the many and varied theoretical definitions of power, power researchers have shown little agreement about its operational definition. Power has been studied as a function of outcomes, of actors' potential for influence, of actors' perceptions, and of their actual behavior. Few correlations have been found among these various measures partly because: 1) studies frequently used student groups whose predictions about each other's power had little base in experience, 2) outcome measures were theoretically derived while self-reports were based on subject perceptions, 3) coding schemes used to analyze interactions were theory-based thus making the subjects' behavior fit the theory instead of vice versa, and 4) digital measures of the subjects' perceptions were inadequate to measure the analogic way people define and act out power in their relationships.

This study attempted to resolve some of these problems in its methodology. First, the subjects used here were experienced bargainers. They were divided into two three-person bargaining groups. They carried out a one hour simulated bargaining session while being filmed by two videotape cameras. The subjects were interviewed about their impressions of the influence tactics used during the bargaining session. This interview data was used to generate the first participant perception based coding scheme. The subjects returned a week later to view the videotapes and were asked to identify the statements and behaviors that indicated the use of power. Their responses provided the raw data for the second participant perception based coding scheme. The two sets of data were sorted, categorized, and sorted again to generate two different

coding schemes for use in analyzing the videotapes. Four observers were then trained and asked to code the videotapes (two coders used one coding scheme and two more used the other).

The findings revealed no readily predictable patterns of behavior except that giving and receiving information or logical arguments tends to make up the bulk of the bargaining interaction. One interesting result was the frequent coding of nonverbal behavior as an index of power. In addition, subject responses indicated that language use plays an important role in perceptions of power. Subjects with different orientations toward power apparently do not define or use power differently as evidenced by the universal pattern of behaviors observed using the second coding scheme. Finally, the use of participant perception based coding schemes allowed the observers to closely match the objective outcome measure of the bargaining in their coding.

In conclusion, the use of subject responses to generate coding categories is highly recommended. This procedure will aid in revising power theory to meet actual human behavior. More attention should be paid to how language use reflects the use and balance of power in a relationship. More work is needed in developing an adequate self-report measure of the subjects' perceptions of their power relationships. Also, nonverbal cues appear to play an important role in influencing perceptions of power. That role deserves further, more detailed study. Finally, the development of a method of measuring varying intensities of power related behaviors might be helpful in explaining why bargaining participants' perceptions of outcome are so diverse.

APPENDIX 1

PRE- AND POST-SESSION QUESTIONNAIRE

This packet contains several questions designed to measure your general orientation toward bargaining, conflict, and decision-making. The results will be used to determine the amount of change in your orientation during the course of this experiment (if any), and to explore the connection between your general orientation and your specific bargaining behavior.

Completion and return of this questionnaire is the first step in the research project. It constitutes written consent to participate in this experiment. You are, however, free to withdraw from this research project at any time if you wish. If you have any questions or concerns about the study do not hesitate to ask.

DECISION MAKING BEHAVIOR

For each of the following statements, choose the description that best characterizes the way you think or act when making decisions and/or bargaining.

1. When the group is making a decision I:
 - ☐ Passively defer to others.
 - ☐ Try to get a decision that satisfies everyone without worrying about how good it is.
 - ☐ Look entirely at the merits of a decision without thinking about how the members of the group feel or how satisfied they are.
 - ☐ Look for decisions that work, though I might not personally think they are the best.
 - ☐ Try to get strong, creative decisions with a common basis for understanding among group members.
2. When the group is facing a decision I:
 - ☐ Show little interest in the decision or the other group members.
 - ☐ Think mostly about how people in the group get along, without worrying what the decision will be.
 - ☐ Push for a really good decision, and view the other members as only providing resources for helping make a better decision.
 - ☐ Try to get good relations among the members and a good solution, though willing to sacrifice a little of both to get the job done.
 - ☐ Avoid compromise and work for everyone to agree to and be satisfied with a decision that is based upon looking at the situation in a realistic way.
3. When my group is making a decision I:
 - ☐ Wait for the group to tell me what to do and accept what they recommend for me.
 - ☐ Help others participate by giving moral support to members and by testing to see if members can agree.
 - ☐ Give information, evaluate how well the group is working toward the task, set ground rules for behavior, and see that everyone stays at the task.
 - ☐ Summarize periodically what has been discussed, call for things to be made clear, and encourage people to compromise.
 - ☐ Help the group think of alternatives, discuss how practical they are, and work out ways by which the group can come to an agreement.

4. When I find myself disagreeing with other members of the group I:
____ Stand by my ideas and continue to defend my position,
actively trying to get it accepted by the group and
incorporated into any decisions made for as long as it
takes to do so.
____ Try to explore the points of agreement and disagreement
and the feelings that other group members have about these
points and why; I press a search for alternatives that take
everyone's views into account.
5. Controversies are:
____ Valuable to clear the air and enhance involvement and
commitment and, when productively handled, result in
increased creativity.
____ Destructive because opposition leads to dislike, and
disagreement over ideas means personal rejection of other
group members.
6. When I am involved in a controversy I:
____ Feel rather fearful and concerned about how other members
like me and whether I really like them.
____ Feel angry at their ignorance and rather annoyed that I
have to be around such stupid people.
____ Am stimulated and feel full of excitement and fun as I
think about the issues being discussed.
7. Which of the following is more typical of your behavior?
____ When I find myself in disagreement with other group members
I always state my position and feelings so that everything
is out in the open.
____ When I find myself in disagreement with other group members,
I keep quiet and "sit the discussion out."
8. When I get involved in a good argument I:
____ Find my ideas becoming more and more creative as I
incorporate other members' ideas and notions and begin to
see the issue from different perspectives.
____ Become more and more certain that I am correct and argue
more and more strongly for my point of view.
9. When I have a conflict of interest with other group members I:
____ Focus on the need for mutual cooperation and the areas of
similarity between our needs and positions.
____ Focus on the superiority of my position and whether I win
or whether they win.
10. When other group members and I have a conflict of interest I:
____ Try to increase my power and use it to push for acceptance
of my position.
____ Try to equalize power and push for a creative agreement
that all members can live with.

11. When I am involved in a conflict of interest with other group members I:
- ☐ Let members know my position is flexible in order to help in creative problem solving.
 - ☐ Let members know that I am committed to my position in order to force the other members to give in and agree.
12. When I have a conflict of interest with other group members I:
- ☐ Use threats and express hostility to force them to accept my position.
 - ☐ Avoid threats in order to reduce the other's defensiveness and express hostility to free myself from angry feelings that might interfere with cooperation in the future.

INSTRUCTIONS: Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write +1, +2, +3 or -1, -2, -3 depending on how you feel in each case.

+1 I agree a little

+2 I agree on the whole

+3 I agree very much

-1 I disagree a little

-2 I disagree on the whole

-3 I disagree very much

- ___ 1. An advantage of having power is being able to get people to follow your orders.
- ___ 2. People in powerful positions are often rewarded for doing very little.
- ___ 3. Having power gives you independence.
- ___ 4. An advantage of being in a position of power is that people seem to treat you as somebody special.
- ___ 5. In the long run, it is better to avoid having power.
- ___ 6. Knowing things others do not know gives you power over them.
- ___ 7. You know you have power when other people must come to you for things they need.
- ___ 8. An advantage to being considered powerful is that other people want to be like you.
- ___ 9. A person can be powerful within one group and not within another.
- ___ 10. There is no such thing as power without a purpose.
- ___ 11. The drive for power exists in all of us.
- ___ 12. An advantage of being in a position of power is being able to control the rewards and punishments of others.
- ___ 13. Powerful people are cautious about whom they confide in.
- ___ 14. Success and power go hand in hand.
- ___ 15. If you have power, you have a sense of security.
- ___ 16. The responsibility and challenge of power is exciting.
- ___ 17. People seek power for its own sake.
- ___ 18. Power is something to be avoided.
- ___ 19. Having information that others want and need gives a person a great deal of power.
- ___ 20. People know they are powerful when others are dependent on them.
- ___ 21. People usually deserve the power they get.
- ___ 22. How much power a person has varies considerably from one situation to another.
- ___ 23. People naturally try to avoid feeling powerless.
- ___ 24. Powerful people are easy to recognize, even in situations where they do nothing to demonstrate their power.
- ___ 25. Sometimes powerful people cannot avoid hurting others.
- ___ 26. The meek shall inherit the earth.
- ___ 27. Power means the ability to beat the competition.
- ___ 28. It takes political skill to become powerful.
- ___ 29. Sometimes it is necessary for a powerful person to tell people what they should think.
- ___ 30. An advantage to having power is the freedom it gives you.

- ___ 31. You can usually tell a powerful person as soon as he or she enters a room.
- ___ 32. I would like to be a powerful person.
- ___ 33. Power comes from being an expert in something.
- ___ 34. People instinctively seek power.
- ___ 35. Whether power is good or bad depends on the type of person who has it.
- ___ 36. Power should be used to do the greatest good for the greatest number of people.
- ___ 37. In general, powerful people do more harm than good.
- ___ 38. Having power means that people may not like you.
- ___ 39. Powerful people are likely to feel anxious.
- ___ 40. Remaining in power requires political skill.

POWER ORIENTATION SCALE

Scoring Sheet

Add a constant of +4 to item responses, reversing those responses where indicated. Total the items within each factor and that will constitute an individual's score on a particular orientation to power.

Power as Good

Item: 5 _____ (R)

16 _____

18 _____ (R)

32 _____

37 _____ (R)

Total: _____

Power as Resource Dependency

Item: 6 _____

7 _____

19 _____

20 _____

Total: _____

Power as Instinctive Drive

Item: 11 _____

23 _____

34 _____

Total: _____

Power as Political

Item: 28 _____

40 _____

Total: _____

Power as Charisma

Item: 24 _____

32 _____

Total: _____

Power as Control and Autonomy

Item: 1 _____

3 _____

12 _____

30 _____

Total: _____

Table 13

Subjects' Raw Scores on the POS Pre- and Post-Test

Dimension	Subject	U1	U2	U3	C1	C2	C3
Good	Pre	6	13	10	8	13	10
	Post	6	15	9	8	9	12
Instinctive Drive	Pre	-2	2	4	3	1	3
	Post	3	-3	4	3	8	6
Charisma	Pre	3	4	4	-2	0	2
	Post	0	3	2	-3	0	2
Resource Dependency	Pre	9	8	-9	2	2	6
	Post	6	10	-5	4	-1	4
Political	Pre	4	6	2	0	0	0
	Post	4	6	2	0	-1	4
Control Autonomy	Pre	6	7	-12	3	-2	6
	Post	5	4	-11	4	-6	8

APPENDIX 2

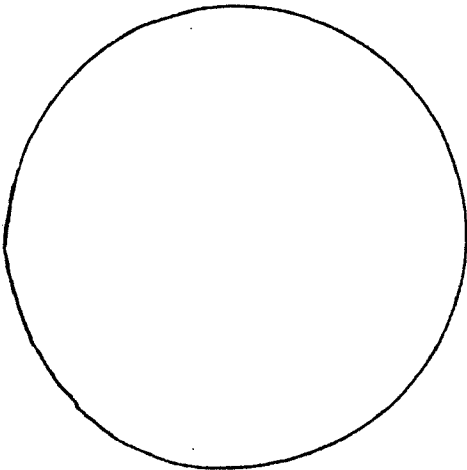
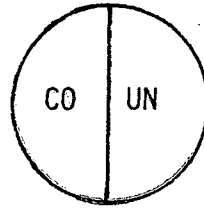
POST-SESSION INTERVIEW QUESTIONS

PRE- AND POST-SIMULATION INTERVIEW QUESTIONS

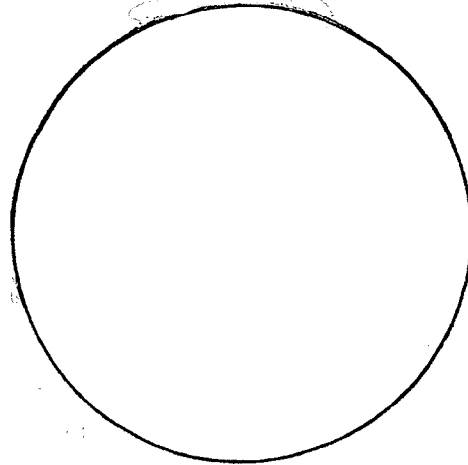
1. What did you see as your main strengths and weaknesses?
What did you see as the strengths and weaknesses of the other team?
2. What about this situation, if anything, helped you get what you wanted?
What factors worked in favor of the other team getting what they wanted?
3. How did you attempt to get your way in the bargaining session?
How did the other team act in attempting to get their way?
4. What did you do to influence the final agreement?
What did the other team do to influence the final agreement?
5. How could you tell a successful influence attempt from an unsuccessful one?
What did you do to counter an influence attempt by the other team?
6. How did you tell, as a bargainer, who has come out ahead on each point or issue?
7. (Post-session interview only) Did you have moves or strategies that you did not use for some reason? (What were they? Why didn't you use them?)
8. How would you describe the relationship between the two bargaining teams?

9. Divide the following "pies" to indicate your view of how each team fared or will fare in getting what they want on each issue.

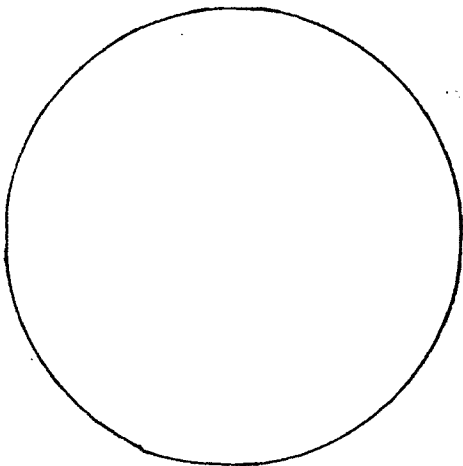
Example: CO=Company
UN=Union



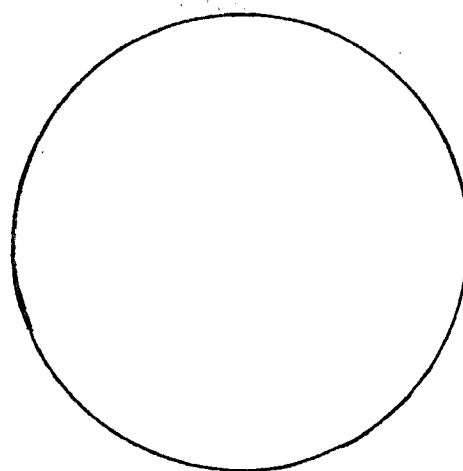
WAGES



TERM OF CONTRACT



GRIEVANCE PROCEDURE



LAYOFFS

10. Did you have enough information to play out this simulation realistically?
11. Do you think that the time limitation was overly restrictive?
12. How "realistic" would you say your bargaining behavior was; did you act like you normally would at the table?

APPENDIX 3

THE BARGAINING SIMULATION

CORN VALLEY LUMBER CORPORATION
vs.
INTERNATIONAL LUMBER UNION

A Collective Bargaining Simulation
by
John (Sam) Keltner

General Information

The Corn Valley Lumber Corporation owns and operates a number of sawmills, plywood plants, and paper mills in the Northwest. One of the major units is in Corn Valley, Oregon where it operates a sawmill and a veneer plant. It employs approximately 200 persons, at those two installations, other than the supervisory and management personnel.

The employees are represented by the International Lumber Union. The current contract is terminating on Wednesday, May 5, at 9:00 p.m. The parties have been negotiating the new contract for about three months. Several issues remain to be resolved. They are:

1. Wages
2. Term of the contract
3. Layoff procedure
4. Grievance procedures

Up until this time specific contractual terms for layoff and for grievance procedures have not been a part of the contract. The Union is now insisting that these matters become a part of the contractual agreement.

In the past three months the Company has shut down a number of its mills and plants across the country. The Corn Valley plant has not had a layoff as yet. There is, however, a good chance that if the housing and lumber industry does not improve shortly there will be layoffs at the Corn Valley installations.

Almost all of the Corn Valley plants' employees live in or near Corn Valley. These plants are the principle income producing source for residents of the area. In other words, the area economy depends on these plants.

These negotiations are being closely watched by the residents of the area and surrounding areas.

At the last meeting of the negotiating teams both parties were unable to make much change in position. Up until the present time the Company has made no wage offer. The Union has requested

30 percent wage increase due to inflation and the inequitable position of employees in these plants compared with the industry on the whole. The Company feels this is wholly impractical and has refused to make a wage proposal until the Union comes off its "impossible" position (Company attitude). The Union is afraid to move off of its position for fear that the Company will take this as a sign of weakness and make only a token wage offer.

General Instructions

Because of the importance of this contract for the Valley, the local press has been very interested in the negotiations and is constantly asking for information and interviews. Last week a feature article appeared in the local paper telling of the stalemate in the negotiations and quoting interviews with both management and labor people. Both sides have resented this and there is some tension around the things alleged to have been said.

The next meeting of the bargaining teams is at 8:00 p.m., Wednesday, May 5.

CORN VALLEY LUMBER SIMULATION

COMPANY
CONFIDENTIALFacts for the Company

- Because of the terrible condition of the industry, the Company is facing a shutdown of the Corn Valley mills in the immediate future. Top management has already sent out orders to prepare timetables and schedules for a shutdown.
- This mill, however, has the lowest wage and labor costs of any of the mills run by the Company. For this reason the Company will close this mill as a last resort and will open it up first when the industry picks up. If the economic situation should change the Company would try to keep the mill open.
- It is estimated that the wage advantage of the Corn Valley plants is approximately 20 percent under all other mills in the area of at least three states.
- Due to the recession the Company has lost a lot of its market. It still has, however, a firm export market for dimension lumber and veneer. It is expected that this may support the continuation of the Corn Valley installations at about 50 percent capacity after about a four (4) week layoff, whenever that layoff occurs.
- The Company does intend to make a wage offer but because it is much below what the Union is asking and what the cost of living index indicates it has not been willing, up to now, to put that offer on the table.
- The Company would like, of course, a long term contract at the reduced wage rates it feels it can afford to pay at this time.
- The Company has looked at a number of layoff and grievance clauses and is prepared to make a proposal at the next meeting of the bargaining teams.

As representatives for the Company you must prepare yourselves on the following matters:

1. Determine what wage rate you will be willing to offer and what rate you will be willing to settle on.
2. Determine the exact length of contract you will accept.
3. Examine layoff clauses and select or word a clause that best fits your situation. Be prepared to submit this to the Union at the bargaining session.

4. Examine grievance clauses and select or word a clause that best fits your situation. Be prepared to submit this to the Union at the bargaining session only after the Union has made its suggestions and if they are not acceptable to you.
5. Prepare your bargaining team to handle the upcoming negotiation session. Remember that it will be the last session before the contract expires.

CORN VALLEY LUMBER SIMULATION

UNION
CONFIDENTIALFacts for the Union

- Due to the impending layoff there is a serious need to get a clear agreement as to the order and method of layoff and call back.
- Because of the inflation and the recession situation, the Union is fearful of any long term contract.
- Because of serious problems in layoff and recall there is a real need for a clear and effective grievance procedure.
- People in Corn Valley depend almost totally on the CVL for income. When these plants go down, the area will be in serious financial trouble. However, it does not cost as much to live in Corn Valley as in other areas of the state. The local paper recently reported that living costs here were approximately 20 percent lower than in surrounding areas in the Northwest.
- Union membership has been increasing of late as fear of the shutdown grows.
- The Union started its bargaining with a 30 percent wage increase proposal. The reason given was the wide difference in wages with other plants in the state and the cost of living increase in the state. Even so, the Union realizes that this figure is not realistic in many ways but it has been afraid to lower its demand for fear the Company will feel it is weak and will whip-saw the Union to an impossibly low wage that will force the Union to strike.
- The Union does not want a strike. Conditions at this time make it very difficult to support the strikers. However, if the Company does not come up with some reasonable proposals the workers will probably pull a wildcat strike. In that case the Union will have to support the workers as best it can.
- Because of the serious economic situation, the Union is wary of any long term contract.

As representatives of the Union employees you must prepare yourselves on the following matters:

1. Determine the wage rate you will be willing to finally settle on and the stages you feel you will have to go through to get there.
2. Determine the exact length of contract you will accept.
3. Examine layoff clauses and select or word a clause that best fits your situation. Be prepared to submit this to the Company at the bargaining session.

4. Examine grievance clauses and select or word a clause that best fits your situation. Be prepared to submit this to the Company at the bargaining session and support your proposal with reasons for its usefulness to both the Union and the Company.
5. Prepare your team for the upcoming bargaining session. Remember that it will be the last session before the contract expires.

CORN VALLEY LUMBER SIMULATION

The following are the possible settlement points on each issue you will be negotiating. To the right of each option you will see a column marked "Union" and a column marked "Company." You are to assign points to each option according to how desirable it is to your team. Assign points for your team only. You have 100 points to distribute among the options for each issue. For example, if you had four possible outcomes on the wage issue and each was less desirable than the one before it you might assign the points as follows:

Option 1	40 pts.
Option 2	30 pts.
Option 3	20 pts.
Option 4	10 pts.

Remember, you must assign exactly 100 pts. per issue and you are free to assign no points or even negative points to an option as long as the total adds up to 100.

	Company	Union
<u>WAGES:</u>		
30% increase in wages	_____	_____
25% increase in wages	_____	_____
20% increase in wages	_____	_____
15% increase in wages	_____	_____
10% increase in wages	_____	_____
5% increase in wages	_____	_____
NO increase in wages	_____	_____
<u>TERM OF CONTRACT:</u>		
1 year contract	_____	_____
2 year contract	_____	_____
3 year contract	_____	_____
3 years with reopen on wages after 18 months	_____	_____
2 years with reopen on wages after 12 months	_____	_____

LAYOFFS:

No layoff clause	_____	_____
Layoffs beginning with the least senior workers within each department without transfers	_____	_____
Layoffs beginning with the least senior workers company-wide with transfers	_____	_____
No layoffs until workers hours have been cut at least ½.	_____	_____
Workers have a choice of layoffs or reduced hours	_____	_____
Layoffs by seniority in both labor and management (if labor is cut 10%, mgt. must be cut 10%)	_____	_____

GRIEVANCE PROCEDURE:

Grievances will be taken through the following channels.
(Joint Committee refers to a committee made up of 2 union representatives and 2 company representatives).

	Company	Union
Foreman, Superintendent, Personnel Director; NO Arbitration	_____	_____
Foreman, Superintendent, Personnel Director; then Arbitration but only at the request of both parties	_____	_____
Foreman, Superintendent, Personnel Director; then Arbitration at either parties' request	_____	_____
Foreman, Superintendent, Joint Committee; NO Arbitration.	_____	_____
Foreman, Superintendent, Joint Committee, then Arbitration.	_____	_____

Foreman, Superintendent,
Joint Committee, mandatory
Mediation in the Committee,
then Arbitration.

NO Grievance Clause

APPENDIX 4

RAW DATA FOR THE SORTING AND CODING PROCEDURES

TACTICS EXTRACTED FROM THE POST-SIMULATION
INTERVIEW TAPES

1. Speculate about how likely a point is to be ratified (U3)*
2. Asking questions: "What did you mean...?" (U2)
3. Insist on a living wage (U3)
4. Beating on the table (U3)
5. Calling off the current bargaining session (U2)
6. Scream and yell while another team member is conciliating (U3)
7. Threaten an unfair labor practice suit (U1)
8. Getting the other team to all talk or contribute (C2)
9. Be prepared to talk when one comes to a session (U2)
10. Express the potential of a strike (U3)
11. Call a caucus (C3)
12. Blow cigar smoke at the other team (C1)
13. Anticipation of the other team's moves (C2)
14. Hold out for as long as possible (U1, U2, U3)
15. Begin with non-money issues (U1)
16. Make quick, at-the-table decisions--be decisive (C2)
17. Show experience in bargaining (C1, C2)
18. "Stomping" out of the room (C2)
19. Mention the existence of personal relationships with opposing bargainers (C2)
20. Keep the other team talking (C2)
21. Ask the other team to make a specific proposal out of a general argument (a "matter of principle" argument) (C3)
22. Doodle (C2)
23. Show an understanding of information about the industry (C1, C3)
24. Mix antagonism with conciliation (one hostile member and one "nice" guy) (C3)
25. Squirm in one's seat (C3)
26. Do the unexpected--act contrary to one's reputation or normal patterns (C3)
27. Look away or look down--avoid eye contact (C3)
28. Get the other team to put something in writing in a short amount of time (C1)
29. Do the writing oneself (C2)
30. Insist on the other team making a counteroffer (C3)
31. Make large (numerical) concessions (C3)
32. Be clear about one's purpose or end-point goal (C3)
33. Use logic--strong rational arguments (U2, U3)
34. Be open minded (C2)
35. Equalize contributions and decision-making authority (C3)
36. Focus--discuss points progressively more specifically (C1)
37. Indicate willingness to compromise (C2)

38. Make a demand or request immediately followed by an offer to the other team (C2)
39. Suggest closure of the plant (U1)
40. Talk about the time limit (U2)
41. Denounce an offer as an "insult" or "ludicrous" (U2)

* Numbers in parentheses indicate the subject who suggested each tactic.

TACTICS IDENTIFIED BY THE SUBJECTS DURING
THE VIDEOTAPE VIEWING SESSION

1. Avoid eye contact (C2)*
2. Put one's pen away (C2)
3. Shake your head (C2)
4. "We will have no more movement on the contract whatsoever" (U3)
5. "We have given you more than we had planned on giving you coming into this bargaining session" (U3)
6. "We would double our wage offer at this point" (U3)
7. "The alternative might be a complete close down of the plant" (U3)
8. "You are saying to us 'higher wages is more important to us than keeping people working'" (U3)
9. "Is it in your best interest to allow that?" (U3)
10. "Is that fair?" (U3)
11. "The alternative is probably closing down the plant." (U3)
12. "No we absolutely could not accept that." (U3)
13. Cite statistics (U2, U3)
14. Look at your watch (U2)
15. "We only have 15 minutes until the contract expires." (U2)
16. "We do not really like it but we are willing to live with it." (U2)
17. "That is a pretty embarrassing proposal." (U2)
18. "We would be laughed right out of the union hall with that offer." (U2)
19. "We have got to sell this idea to our constituents." (U2)
20. Extend the other side's own examples/reasoning so that it appears unrealistic/ridiculous. (U2)
21. Turn the other side's own words against them (U2)
22. "You are getting paid more than people on unemployment." (U1, C2)
23. "We are not paid as much as other workers in this industry (or area)." (U1, C2)
24. "Is that the best you can do?" (C2)
25. Lower one's voice (C2)
26. "Are you saying that you are insensitive to your own people?" (C2)
27. Denounce the other sides's offer as inadequate, ludicrous, etc. (U1, U2)
28. "We are closer to agreement but still far apart on (x)." (U1)
29. Take notes while others are talking (C2)
30. Interrupt (C2, U2)
31. Raise your voice (U2)
32. "That is the same argument we have been running into for hundreds of years." (U2)
33. "I am a little offended by that offer." (U2)
34. Rap the table with fist, palm, or finger (U2)
35. "We have no more movement after this offer." (U2)

36. "This offer exceeds our authority." (U2)
37. "We have given you (x) on (y) issue." (U2)
38. "We are as concerned as you are about (x)." (U2)
39. "We are at the end of our rope." (U2)
40. "We have some doubt as to whether we are going to have this contract ratified." (U2)
41. "You will get what you want if you go along with our proposal." (U2)
42. "Without that we cannot go back to our people without facing the probability of a wildcat strike." (C2)
43. "I would like to hear more about why you think (x) is justified." (U1)
44. "Are you really trying to tell us (x)." (U2)
45. Deny the other side's point--make them prove it.(U1)

* Numbers in parentheses indicate the subject who identified each tactic.

MATRICES OF AGREEMENT FOR THE INDEPENDENT SORTS OF THE INTERVIEW AND VIDEOTAPE DATA

I. Interview Data

		Rater A		
		1	2	3
	1	.15	.16b	.02
Rater B	2	.05	.12	.28c
	3	.08a	.05	.10

abc = Best agreement between raters (.52)

a = Card numbers 5, 10, and 39

b = Card numbers 14, 24, 26, 28, 30, and 38

c = Card numbers 2, 9, 13, 17, 19, 23, 32, 33, 34, 35, and 36

II. Video tape Data

		Rater A		
		1	2	3
	1	.13	.18	.12c
Rater B	2	.02	.20b	.08
	3	.09a	.08	.09

abc = Best agreement between raters (.41)

a = Card numbers 7, 9, 10, and 11

b = Card numbers 1, 2, 3, 13, 14, 21, 25, 31, and 34

c = Card numbers 18, 19, 22, 23, and 32

MATRICES OF AGREEMENT FOR THE DATA SORTS BASED ON
RESEARCHER CONSTRUCTED CATEGORIES

I. Interview Data (CS1)

		Rater A			
		1	2	3	4
Rater B	1	.26a*	.03	.00	.00
	2	.05	.13b*	.00	.00
	3	.03	.00	.08c*	.03
	4	.05	.00	.11	.24d*

* Agreement = 71%

a = Items 8, 11, 15, 17, 19, 20, 23, 34, 35, and 37

b = Items 2, 21, 32, 33, 36

c = Items 3, 14, 29

d = Items 4, 6, 7, 10, 12, 18, 22, 16, and 29

II. Videotape Data (CS2)

		Rater A				
		1	2	3	4	5
Rater B	1	.18a*	.02	.02	.00	.04
	2	.02	.11b*	.02	.90	.04
	3	.00	.00	.11c*	.00	.02
	4	.00	.00	.00	.21d*	.00
	5	.07	.02	.00	.00	.13e*

* Agreement = 71%

a = Items 8, 9, 10, 13, 20, 43, 44, and 45

b = Items 4, 7, 12, 35, and 39

c = Items 6, 16, 28, 37, and 41

d = Items 1, 2, 3, 14, 25, 29, 30, and 31

e = Items 15, 17, 18, 22, 27, and 33

FINAL CODING CATEGORIES (CS1)

- I. INCREASE THE AMOUNT OF INFORMATION:
 - Indicate willingness to compromise
 - Make equal contributions and distribute decision-making authority
 - Be open minded
 - Show an understanding of information about the industry
 - Keep the other team talking
 - Mention the existence of personal relationship with opposing bargainers
 - Show experience in bargaining
 - Begin with non-money issues
 - Call a caucus
 - Get the other team to all talk and contribute
- II. INCREASE THE SPECIFICITY OF INFORMATION:
 - Focus by discussing points progressively more specifically
 - Use logic and strong rational arguments
 - Be clear about one's own purpose or goal
 - Ask the other team to be specific about a general argument
 - Ask questions: ("What do you mean...?")
- III. RESTRICT THE OTHER TEAM:
 - Do the writing oneself
 - Hold out for as long as possible
 - Insist on a living wage
- IV. THROW OFF THE BALANCE OF THE PROCESS:
 - Suggest closure of the plant
 - Do the unexpected; go against your own patterns or reputation
 - Doodle
 - Stomp out of the room
 - Blow smoke at the other team
 - Mention the possibility of probability of a strike
 - Scream and yell while another member of your team conciliates
 - Call off the current bargaining session
 - Beat on the table

FINAL CODING CATEGORIES (CS2)

- I. LOGIC AND REASONING: Presenting one's own logic and reasoning; challenging the other's examples and argument; questioning the other's logic, reasoning, or examples.
 - "You are saying to us 'higher wages is more important to us than keeping people working.'"
 - "Is it in your best interest to allow that?"
 - "Is that fair?"
 - Cite statistics
 - Extend the other team's own examples/reasoning so that it appears unrealistic or ridiculous.
 - "I would like to hear more about why you think (X) is justified."
 - "Are you really trying to tell us (X)?"
 - Deny the other side's point--make them prove it.
- II. DEAD ENDS: Communicating inflexibility
 - "We will have no more movement on the contract whatsoever."
 - "The alternative might be a complete close down of the plant."
 - "No we absolutely could not accept that."
 - "We have no more movement after this offer."
 - "We are at the end of our rope."
- III. GIVE AND TAKE: Exchanges, expressing or asking for cooperation; exchanging concessions.
 - "We would double our wage offer at this point."
 - "We do not really like it but we are willing to live with it."
 - "We are closer to agreement but still far apart on (X)."
 - "We have given you (X) on (Y) issue."
 - "You will get what you want if you go along with our proposal."
- IV. POWER CUES: Nonverbal emphasis, responses, or disinterest.
 - Avoid eye contact
 - Put your pen away
 - Shake your head
 - Lower one's voice
 - Taking notes while other's are talking
 - Rapping the table with fist, palm, or finger
 - Interrupting
 - Raising your voice
 - Looking at your watch
- V. PRESSURE TACTICS: Indicate that an offer is unacceptable; emphasize time pressure; insults.
 - "I am a little offended by that offer."
 - "We only have 15 minutes until the contract expires."
 - Denounce the other side's offer as inadequate, ludicrous, etc.
 - "You are getting paid more than people on unemployment."
 - "We would be laughed right out of the union hall with that offer."
 - "That is a pretty embarrassing proposal."

CS1 CATEGORIES	C3	C2	C1	U1	U2	U3
I. MAXIMIZE INFORMATION & KNOWLEDGE: Increase the <u>amount</u> of info; exhibit <u>experience</u> and existence of personal relationships with members of the other team						
II. BE SPECIFIC: Increase the <u>specificity</u> of info; get <u>clear</u> on the arguments and issues in question						
III. RESTRICT THE OTHER TEAM: Be inflexible and uncooperative						
IV. THROW OFF THE BALANCE: Confuse, pressure, or distract the other team; introduce abrupt changes in patterns or norms						

Figure 4

Coding Sheet for CS1

CS2 CATEGORIES	C3	C2	C1	U1	U2	U3
I. LOGIC & REASONING: Giving your own L & R; challenging the other's examples and arguments; questioning their logic						
II. DEAD ENDS: Communicating inflexibility						
III. GIVE & TAKE: Expressing and/or asking for cooperation; exchanging concessions						
IV. POWER CUES: Nonverbal emphasis, response or disinterest						
V. PRESSURE TACTICS: Indicate that an offer is unacceptable; emphasize time pressure; use emotional argument						

Figure 5

Coding Sheet for CS2

REFERENCES

- Appelbaum, E. On conflicts and bargaining. In L. Berkowitz (ed.), Advances in Experimental Social Psychology, 1974, 7, 103-156.
- Anglemar, R. & Stern, L. W. Development of a content analytic system for analysis of bargaining communication in marketing. Journal of Marketing Research, 1978, 15, 930102.
- Bacharach, S. B. & Lawler, E. J. Power and Politics in Organizations San Francisco: Jossey-Bass, 1980.
- Bales, R. F. Interaction Process Analysis: A Method for the Study of Small Groups. Reading, Mass.: Addison-Wesley, 1950.
- Berger, C. R. Power in the family. In M. E. Roloff & G. R. Miller (eds.), Persuasion: New Directions in Theory and Research, Beverly Hills: Sage, 1980.
- Blau, P. M. Exchange and Power in Social Life. N.Y.: Wiley, 1964.
- Blood, R. O. & Wolfe, D. M. Husbands and wives: The dynamics of married living. N.Y.: The Free Press, 1960.
- Bochner, A. On taking ourselves seriously: An analysis of some persistent problems and promising directions in interpersonal research. Human Communication Research, 1978, 4, 179-191.
- Bochner, A., Kaminski, E., & Fitzpatrick, M. The conceptual domain of interpersonal communication behavior: a factor analytic study. Human Communication Research, 1977, 3.
- Bowers, J. W. & Ochs, D. J. The Rhetoric of Agitation and Control. Reading, Mass.: Addison-Wesley, 1971.
- Caplow, T. Two Against One: Coalition in Triads. Englewood cliffs, N.J.: Prentice-Hall, 1968.
- Cartwright, D. (ed.), Studies in Social Power. Ann Arbor, Mi.: University of Michigan, 1959.
- Cavanaugh, M., Larson, C., Goldberg, A., & Bellows, J. Power & communication behavior: A formulative investigation. Unpublished manuscript, Dept. of Speech Communication, University of Denver, 1980.
- Centers, R., Raven, B., & Rodrigues, A. Conjugal power structure: A re-examination. American Sociological Review, 1971, 36, 264-278.
- Chertkoff, J. M. & Esser, J. K. A review of experiments in explicit bargaining. Journal of Experimental and Social Psychology, 1976 12, 464-486.

- Cohen, J. A coefficient of agreement for nominal scales. Educational and Psychological Measurement, 1960, 20, 31-46.
- Coser, L. A. Continuities in the Study of Social Conflict. N.Y.: Free Press, 1967.
- Cross, J. G. The Economics of Bargaining. N.Y.: Basic Books, 1969.
- Cushman, D. P. & Craig, R. Communication systems: Interpersonal implications. In G. R. Miller (ed.), Explorations in Interpersonal Communication, Beverly Hills: Sage, 1976.
- Dahl, R. A. The concept of power. Behavioral Science, 1957, 2.
- Deutsch, M. Trust and suspicion. Journal of Conflict Resolution, 1958, 2, 265-279.
- Deutsch, M. & Krauss, R. The effect of threat on interpersonal bargaining. Journal of Abnormal and Social Psychology, 1960, 61, 181-189.
- Deutsch, M. & Krauss, R. Studies of interpersonal bargaining. Journal of Conflict Resolution, 1962, 6, 52-76.
- Donohue, W. A. An empirical framework for examining negotiation processes and outcomes. Communication Monographs, 1978, 45, 273-287.
- Douglas, A. The peaceful settlement of industrial and intergroup disputes. Journal of Conflict Resolution, 1957, 1.
- Duke, J. T. Conflict and Power in Social Life. Provo, Utah: Brigham Young University Press, 1976.
- Emerson, R. M. Power-dependence relations. American Sociological Review, 1962, 27, 31-41.
- Foa, U. & Foa, E. Societal Structures of the Mind. Springfield, IL.: Chas. Thomas, 1974.
- Folger, J. P. & Sillars, A. L. Relational coding and perceptions of dominance. In B. W. Morse and L. A. Phelps (eds.), Interpersonal Communication: A Relational Perspective. Minneapolis, Minn.: Burgess, 1980, 306-321.
- French, J. R. P. & Raven, B. H. The bases of social power. In Cartwright, D. (ed.), Studies in Social Power, Ann Arbor: University of Michigan, 1959.
- Frost, J. H. & Wilmot, W. W. Interpersonal Conflict. Dubuque, Iowa: W.C. Brown, 1978.

- Gahagan, J. & Tedeschi, J. Shifts in power in a mixed-motive game. Journal of Social Psychology, 1969, 77.
- Gamson, W. A. An experimental test of a theory of coalition formation. In I. Steiner & M. Fishbein (eds.), Current Studies in Social Psychology, N.Y.: Holt, Rinehart, & Winston, 1965.
- _____. Power and Discontent. Homewood, Il.: Dorsey Press, 1968.
- Golembiewski, R. T. The Small Group: An Analysis of Research Concepts and Operations. Chicago: University of Chicago Press, 1962.
- Grant, M. J. & Sermat, V. Status and sex of other as determinants of behavior in a mixed-motive game. Journal of Personality and Social Psychology, 1969, 12, 151-157.
- Greenberg, J. Effects of reward value and retaliative power on allocation decisions: Justice, generosity, or greed. Journal of Personality and Social Psychology, 1978, 36.
- Gruder, C. L. Social power in interpersonal negotiation. In P. Swingle (ed.), The Management of Power, Hillsdale, N.J.: Erlbaum, 1976.
- Hadley, T. R. & Jacob, T. Relationship among measures of family power. Journal of Personality and Social Psychology, 1973, 27.
- Haley, J. An interactional description of schizophrenia. Psychiatry, 1959, 22, 321-332.
- Harsanyi, J. C. Measurement of social power, opportunity costs, and theory of 2-person bargaining games. Behavioral Science, 1962, 7.
- Hartman, E. A., Philips, J., & Cole, S. Conflict and survival in triads. Journal of Conflict Resolution, 1976, 20.
- Hornstein, H. A. The effects of different magnitudes of threat upon interpersonal bargaining. Journal of Experimental and Social Psychology, 1965, 1.
- Homans, G. C. Social Behavior: Its Elementary Forms; Revised edition, N.Y.: Harcourt Brace Jovanivich, 1974.
- Horai, J. & Tedeschi, J. The effects of threat credibility and magnitude of punishment on compliance. Journal of Personality and Social Psychology, 1969, 12, 164-169.
- Illich, J. Power Negotiating: Strategies for Winning in Life and Business. Reading, Mass.: Addison-Wesley, 1980.

- Jacobson, W. Power and Interpersonal Relations. Belmont, Ca.: Wadsworth, 1972.
- Kahn, R. L. & Boulding, K. (eds.), Power and Conflict in Organizations. N.Y.: Basic Books, 1964.
- Kaplan, A. Consequences and prospects. In R. Kahn & K. Boulding (eds.), Power and Conflict in Organizations, N.Y.: Basic Books, 1964.
- Karrass, C. L. Give and Take: The Complete Guide to Negotiating Strategies and Tactics. N.Y.: T.Y. Crowell, 1974.
- Kelley, H. & Thibaut, J. Interpersonal Relations: A Theory of Interdependence. N.Y.: Wiley, 1978.
- Keltner, J. W. Elements of Interpersonal Communication. Belmont, Ca.: Wadsworth, 1973.
- Kenkel, W. F. Observational studies of husband-wife interaction in family decision-making. In M. Sussman (ed.) Sourcebook in Marriage and the Family, Boston: Houghton Mifflin, 1963.
- Klopper, E., Tittler, B., Friedman, S., & Hughes, S. A multimethod investigation of two family constructs. Family Process, 1978, 17, 83-93.
- Korda, M. Power! How to get it, How to use it! N.Y.: Random House, 1975.
- Lippitt, R., Polansky, N., & Rosen, S. The dynamics of power. Human Relations, 1952, 5.
- Marwell, G. & Schmitt, D. Dimensions of compliance gaining behavior: An empirical analysis. Sociometry, 1967, 38, 350-364.
- Maslow, A. H. Toward a Psychology of Being. N.Y.: Van Nostrand, 1962.
- May R. Power and Innocence: A Search for the Sources of Violence. N.Y.: Delta, 1972.
- Miller, G., Boster, F., Roloff, M., & Seibold, D. Compliance gaining message strategies: A typology and some findings concerning effects of situational differences. Communication Monographs, 1977, 44.
- Miller, J. B. Toward a New Psychology of Women. Boston: Beacon, 1976.

- Minton, H. L. Power and personality. In J. T. Tedeschi (ed.) The Social Influence Processes. Chicago: Aldine, 1972, 102-149.
- Mischler, E. & Waxler, N. Interaction in Families: An experiemntal Study of Family Processes and Schizophrenia. N.Y.: J. Wesley, 1968.
- Olson, D. The measurement of family power by self-report and behavioral methods. Journal of Marriage and the Family, 1969, 31.
- _____. Family typologies: Bridging research and family therapy. In E. Filsinger & R. Lewis (eds.), Beverly Hills: Sage, 1981, 74-89.
- Olson, D. & Rabunsky, C. Validity of four measures of family power. Journal of Marriage and the Family, 1-72, 34, 224-234.
- Paxton, S. G. Perceptions of power influentials in a federal indian school. Unpublished dissertation, Pennsylvania State University, 1974.
- Pollard, S. W. Effects of power on cooperation. Unpublished dissertation, University of Alabama; 1974.
- Poole, M. S. & Folger, J. P. A method for establishing the representational validity of interaction coding systems: Do we see what they see? Human Communication Research, 1981, 8, 26-42.
- Rapoport, A. Formal games as probing tools for investigating behavior motivated by trust and suspicion. Journal of Conflict Resolution, 1963, 7, 570-759.
- _____. Conflict resolution in the light of game theory and beyond. In P. Swingle (ed.), N.Y.: Academic, 1976, 1-43.
- Rapoport, A. & Chammah, A. Prisoner's Dilemma. Ann Arbor, Mi.: University of Michigan Press, 1965.
- Raven, B. H. Social influence and power. In I. Steiner & M. Fishbein (eds.), Current Studies in Social Psychology. N.Y.: Holt, Rinehart & Winston, 1965.
- Raven, B. & Kruglanski, A. Conflict and power. In P. Swingle (ed.), The Structure of Conflict, N.Y.: Academic, 1970, 69-109.
- Richardson, R. Collective Bargaining by Objectives. N.Y.: Academic, 1974.
- Rogers, L. E. & Farace, R. Analysis of relational communication in dyads: New measurement procedures. Human Communication Research, 1975, 1, 222-239.

- Roloff, M. Interpersonal Communication: The Social Exchange Approach. Beverly Hills: Sage, 1981.
- Rozinski, H. Power and Human Destiny. N.Y.: F. A. Preager, 1965.
- Rubin, J. & DiMatteo, M. Factors affecting the magnitude of subjective utility parameters in a tacit bargaining game. Journal of Experimental and Social Psychology, 1972, 8.
- Safilios-Rothschild, C. The study of family power structure: A review 1960-1969. Journal of Marriage and the Family, 1970, 32, 539-552.
- Schelling, T. C. Arms and Influence. New Haven, Conn.: Yale University Press, 1966.
- Shomer, R., Davis, A., & Kelley, H. Threats and the development of coordination: Further studies of the Deutsch & Krauss trucking game. Journal of Personality and Social Psychology, 1966, 4, 119-126.
- Siegel, S. & Fouraker, L. Bargaining and Group Decision-Making. N.Y.: McGraw-Hill, 1960.
- Smith, W. & Leginski, W. Magnitude and precision of primitive power in bargaining strategy. Journal of Experimental and Social Psychology, 1970, 6, 57-76.
- Solomon, L. The influence of some types of power relationships and game strategies upon the development of interpersonal trust. Journal of Abnormal and Social Psychology, 1960, 61, 223-230.
- Spector, B. I. Negotiation as a psychological process. Journal of Conflict Resolution, 1977, 21.
- Steinfatt, T. & Miller, G. R. Communication in game theoretic models of conflict. In G. R. Miller & H. Simons (eds.), Perspectives on Communication in Social Conflict, Englewood Cliffs, N.J.: Prentice-Hall, 1974.
- Swingle, P. (ed.). The Management of Power. Hillside, N.J.: L. Erlbaum, 1976.
- _____. (ed.). The Structure of Conflict. N.Y.: Academic Press, 1970.
- Tedeschi, J. T. Threats and promises. In P. Swingle (ed.), The Structure of Conflict, N.Y.: Academic, 1970.
- _____. (ed.). Social Influence Processes. Chicago: Aldine, 1972.

- Tedeschi, J., Lindskold, S., Horai, J., & Gahagan, J. Social power and the credibility of promises. Journal of Personality and Social Psychology, 1969, 11.
- Tedeschi, J., Bonoma, T., & Schlenker, B. Influence, decision, and compliance. In J. Tedeschi (ed.), Social Influence Processes, Chicago: Aldine, 1972.
- Thibaut, J. The development of contractual norms in bargaining: Replication and variation. Journal of Conflict Resolution, 1968, 12.
- Thibaut, J. & Gruder, D. Formation of contractual agreements between parties of unequal power. Journal of Personality and Social Psychology, 1969, 11, 59-65.
- Thibaut, J. & Kelley, H. The Social Psychology of Groups. N.Y.: Wiley, 1959.
- Tsjovold, D. The use of threat by low power persons in bargaining. Unpublished dissertation, 1973.
- Turk, J. L. Power as the achievement of ends: A problematic approach in family and small group research. Family Process, 1974, 13.
- Turk, J. & Bell, N. Measuring power in families. Journal of Marriage and the Family, 1972, 34.
- Wall, J. A. Operantly conditioning a negotiator's concession making. Journal of Experimental Social Psychology, 1977, 13, 431-440.
- Walster, E., Berscheid, E., & Walster, G. New directions in equity research. In L. Berkowitz & E. Walster (eds.), Equity Theory: Toward a General Theory of Social Interactions, N.Y.: Academic, 1976, 1-42.
- Walton, R. E. & McKersie, R. B. A Behavioral Theory of Labor Negotiations: An Analysis of a Social Interaction System. N.Y.: McGraw-Hill, 1965.
- Watzlawick, P. How Real is Real?: Confusion, Disinformation, Communication. N.Y.: Vintage, 1976.
- Watzlawick, P., Beavin, J. H., & Jackson, D. Pragmatics of Human Communication. N.Y.: W.W. Norton, 1967.
- Wilmot, W. W. Dyadic Communication; 2nd edition. Reading, Mass.: Addison-Wesley, 1979.

_____. Metacommunication: A re-examination and extension. Paper presented to the Speech Communication Association Convention, New York, 1980.

Wilmot, W. W., Carbaugh, D., Bach, B. W., & Bullis, C. A.
Interpersonal power in conflict: Self-reports and objective measures. Unpublished manuscript, University of Montana, 1981.